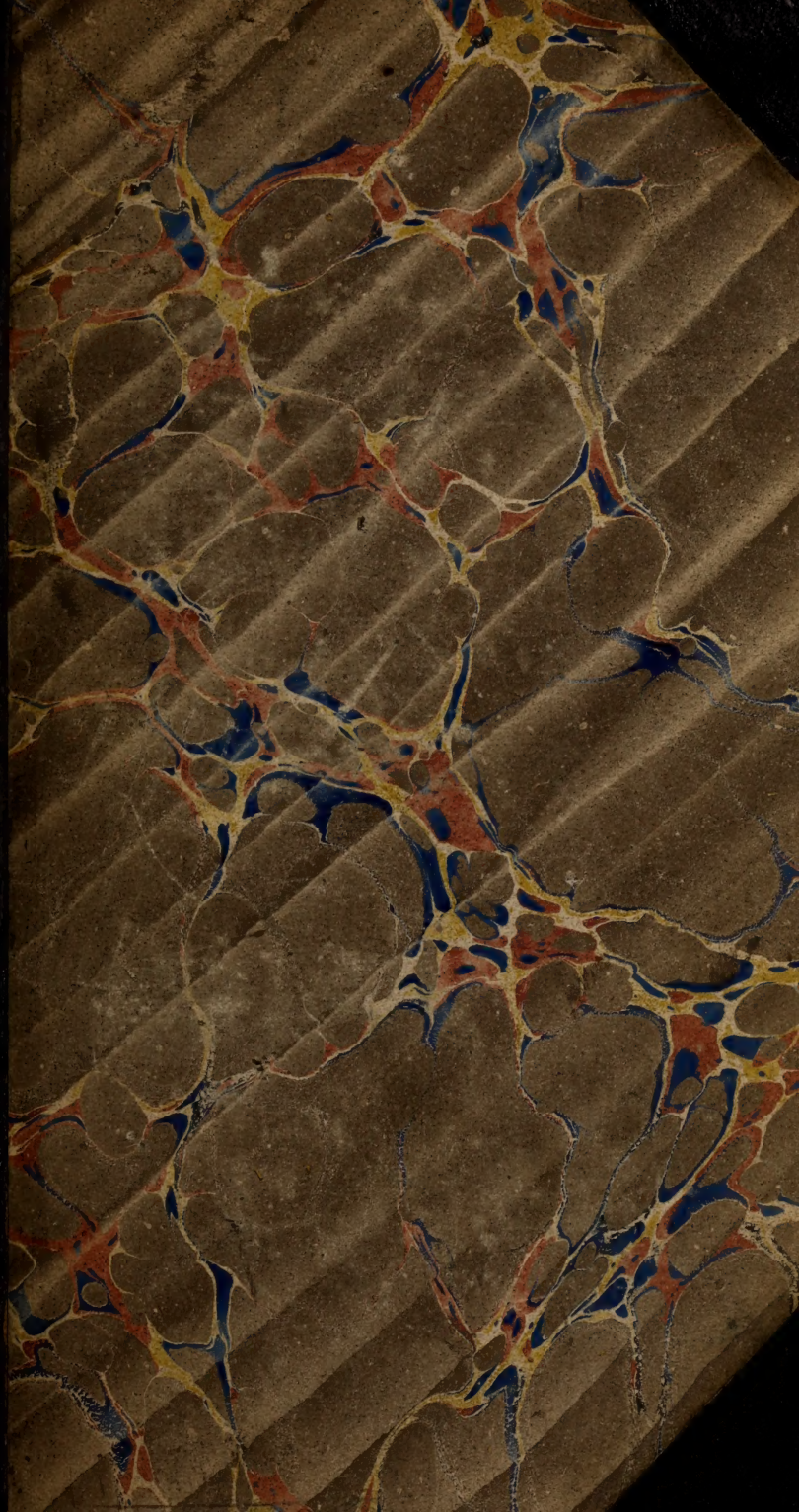
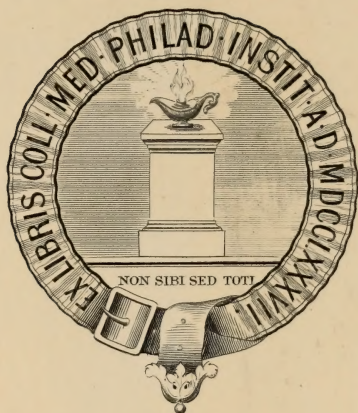




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No. _____

THE OHIO
MEDICAL AND SURGICAL
JOURNAL



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THE OHIO



MEDICAL AND SURGICAL JOURNAL.

EDITORS:

JOHN DAWSON, M.D.,

Professor of Anatomy and Physiology in Starling Medical College, and formerly Physician and Oculist to the State Asylum for the Education of the Blind.

J. W. HAMILTON, M.D.,

PROFESSOR OF SURGERY IN STARLING MEDICAL COLLEGE.



VOLUME X.

COLUMBUS:

JOHN DAWSON AND J. W. HAMILTON, PROPRIETORS.

R. NEVINS, PRINTER.

1858.

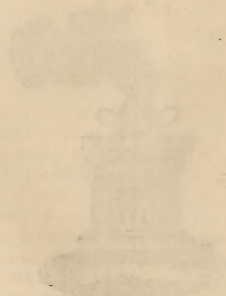


MEDICAL AND SURGICAL

JOURNAL

JOHN HANCOCK, M.D.

J. W. HAMILTON, M.D.



VOLUME

COLUMBUS

JOHN HANCOCK AND J. W. HAMILTON, PROPRIETORS

NEW YORK, 1888

1888

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THE OHIO
MEDICAL AND SURGICAL JOURNAL.

Vol. 10.

Columbus, September 1, 1857.

No. 1.

PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Remarks on the Natural History of Man.* By the Editor.

“In fact what is actually true it is always most desirable to know, whatever consequences may arise from its admission.”

We do not now call to mind who it was that gave expression to the above sentiment. We have, however, thought it very proper as introductory to a few remarks on the *Natural History of Man*.

Many persons look upon some branches of this inquiry with a little degree of suspicion. Prosecuted by any other light than that of Revelation, a very large class, indeed, of well meaning people ignore it as calculated to engender scepticism, and hence are unwilling either to read or reflect on the subject. This is not the proper spirit. The “*works*” of God are as proper subjects of investigation as His “*words*,” and so far as leading to valuable results are concerned, it would be difficult to say which of the two is the more important. The works of the Creator are addressed directly to the senses and to reason — His words to Faith. It is not necessary to say that we should cultivate all the avenues of information we possess. Such a statement would be too axiomatic. But it might be necessary to say

that it is a duty we owe to the Creator to exercise our capacities in regard to all the things that are knowable.

One account of the origin of man has been written by an individual (Moses) who lived near 2500 years after the event took place, and there being no means by which he could have become personally acquainted with the facts in the case, it is assumed that the whole affair was revealed to him just as he has written it down. This, therefore, is one of the methods of archeologists to explain the origin of our race. Another method consists in investigating the matter by the light of profane history; by the traces on the crust of the earth of man's first existence; by the works of art which have been discovered in different countries; by the physical, moral and intellectual diversity of the races, their adaptation to different climates, and by their languages.

In all of these branches medical men have, in common with others, been laboring for years, and although the matter may not be regarded as very practical, the result must be profitable in the production of enlarged and liberal views.

We have neither time nor disposition to attempt a survey, or even brief consideration of the many interesting matters presented by such an inquiry. We are aware that there is much yet unsettled, and we have no taste purely for controversy. Our attention has been attracted to the subject by the appearance lately of a new work—“*The Indigenous Races of the Earth.*”

This work contains monographs on special departments of Ethnology, including Philology, Iconography, Cranioscopy, Palæontology, Pathology, Archæology, Comparative Geography, and Natural History, contributed by Alfred Maury, Francis Pulsky, J. Aitken Meigs; with communications from Prof. Jas. Leidy, M. D., and Prof. L. Agassiz, L. L. D., together with documents and materials by J. C. Nott, M. D., and Geo. R. Gliddon.

It would be impossible to present the reader with even a sketch of what is comprehended under the above heads, in the limits which we design for our remarks. Then, again, we are at a loss to know which one of them we should select to present as a specimen of the inquiry.

The monograph on the “*Cranial Characteristics*” of the races of men, or the one on “*Acclimation*” would furnish much directly within the scope of the physician's line of investigation, and on this

account it would seem right that these should take precedence. Our notion, however, is for the article on

Iconographic Researches on Human Races, and their Art. Contributed by FRANCIS PULSKY.

In our notice of this monograph we expect merely to present its points as much condensed as possible, avoiding mostly the author's commentaries, criticisms, etc.

Mankind, so far as their capacity and developments with reference to science, civilization, progress in moral culture, etc., are concerned, are divided by metaphysical writers into two classes—the *progressive races* and the *passive*. “The white and yellow, and a few brown and red, are put down among the former—the majority of the browns, the hunter-tribes of the reds, and all of the blacks, are classed among the latter.” Then, again, “there appears to be a difference among these as it regards their part in history. Some have taken the lead as the Egyptians, Assyrians, the Shemitic races of Phœnecia, Palestine and Arabia the Persians, Greeks, Romans—while the pure Celts, the Slavonians, Finns, Turks, Tartars, Berbers, remain in the back ground. The mixed populations of Great Britain and North America, (wrongly called the Anglo Saxon race) and the equally mixed one of France, claim now to be at the head of the progressive races, and do not admit the equality of the German proper, the Italian, Spaniards, Dutch, Scandnavians, Celts, Slavonians, Hungarians, Finns; and reject entirely the pretensions of the Turks, Arabs, Persians and Hindoos, to civilization. If this remark needed confirmation, it might be found in the history of these nations—the manner in which they have demonstrated themselves when entirely freed from extraneous influences.

While it is true that none but the so-called progressive races have made proficiency in imitative *Art*—painting and sculpture—it is also equally true that it is to the Shemites, a race altogether deficient in art that the world must acknowledge itself indebted for many important discoveries and improvements, and for their agency in communicating three of the systems of religion that have taken such a wide range in the taste and affections of the caucasian race. We allude to the religions of Moses, Jesus Christ and Mahomet. What is still more singular, all three of these religions originated in the same region, and within a few hundred miles of each other. Mount Sinai, Mecca and Medina, Bethlehem and Jerusalem, are within a few hours railroad ride of each other.

Those nations that have figured in the sculpture or painting of an-

cient times seem to have been possessed of peculiarities that render their works not only easily distinguishable, but impart to them a kind of national type which, in the estimation of moderns, possess different degrees of merit.

ORIGIN OF SCULPTURE.—To Egypt, without any doubt, must be awarded the credit of having, so far as the researches of the Archæologists have extended, been first in the cultivation of the fine arts. Before any thing was known of even the existence of other nations and races, who have figured considerably in painting and sculpture, the Egyptians had passed through the periods of infancy of adolescence and reached a considerable degree of perfection, the highest degree, indeed, of which the nation seemed capable. “The earliest of all the statues now extant in the world is the effigy of *Kam-ten*, a royal kinsman of the III^d dynasty, found in his tomb at Abooseer, and now in the Berlin Museum.” This statue, it is said, is characterized by a good natural expression, without mannerism about the features, which seem to be naturally drawn. It seems to have been executed about the 35th century before Christ. M. Auguste Mariette, one of the Conservateurs of the Louvre Museum, Paris, made some very valuable discoveries during the years 1851–54, at the Serapeum of Memphis. These discoveries, among other things, consist of a collection of portraits, which for antiquity, interest, beauty, surpass every thing hitherto known. Among the portraits is one of an ancient scribe from the venerable tomb of the Vth dynasty, and about 5000 years old. The material is white limestone, colored red; the color, as figured in the work before us, remaining quite bright. This piece of art is considered at the *Louvre* of great excellence, and exhibits the purest type of an ancient Egyptian. A profile view is given which presents the oval form of skull with a very fine facial angle. If any one still supposes the autochthones of Egypt identical, or having any relation to the negro race, an inspection of this and other specimens exhumed by Mariette, will assist in expelling doubts. The Fellahs of the present day, a branch of the Hametic race, although having suffered numerous dilutions of blood, have at last freed themselves of foreign contaminations, and now stand on the banks of the Nile, an evidence of the inherent power of a race to return, after thousands of years of promiscuous admixture, to its own pure and primitive type.

The ancient city of Memphis, as before remarked, was the theatre of the researches of *Mariette*. Memphis, as all know, was once the capital of Egypt. Its situation, until lately, has been a subject of

learned dispute. It is now, however, known to have been but a short distance from Cairo. It was taken and plundered by Camby-ses at the same time that Thebes was destroyed; and, after having figured from the primeval IVth dynasty of the Pharaohs to the latest Roman times, or the commencement of the Christian era—a period of 4000 years—it, with all its greatness, disappeared, leaving the Pyramids, Sphinxes, etc., to indicate to the generation of the present day its former locality.

The French sent out M. in quest of ancient Egyptian MSS. He was attracted near the locality of Cairo by a sphinx *in situ* peeping out of the sand, sand that had been accumulating since the days of Strabo, B. C. 15 years, and that had attained a depth throughout the locality varying from 10 to 70 feet. In regard to what he accomplished, Mariette speaks as follows:

“I estimate that the diggings at the Serapeum of Memphis have led to the discovery of 7000 monuments. But all these monuments are not relative to the same object; that is to say, to the worship of the God adored in the Serapeum. Built in a necropolis more ancient than itself, the Serapeum held within its enclosure some old tombs which the piety of the Egyptians had respected. Nearly all of its walls besides were made of stones borrowed from edifices already demolished.”

The Serapeum at Memphis is a temple built, it seems, for the worship of the bull or god of the ancient Pharaohs. The bull was called Apis, corrupted afterwards, by Greeks and Romans, into *Serapis*. The exhumations revealed the fact that the tomb had been previously sacked and violated. Yet M. discovered monuments enough to “establish, in a manner more or less certain, the existence of a minimum of 64 Apises—that is, of the hieroglyphic records, and some remains of at least 64 embalmed bulls, dedicated to and once buried in this sanctuary of the god Apis.”

We return from the digression into which we have been betrayed, by what, to us, perhaps more than to the reader, seemed to have an uncommon interest in many aspects. Egyptian art, by such disclosures, takes precedence of that of all other nations. Indeed, while engaged in excavating what was Egyptian monuments of art, belonging, as they seemed, to the first of the Pharaohs, a hemicycle formed of Greek statues was discovered, consisting of such worthies as Pindar, Lycurgus, Solon, Euripides, Pythagoras, Plato, Æschylus, Homer, Aristotle. Such was the work, no doubt, of comparatively

recent generations, perhaps of Egyptians or Greeks, added in the way of a contribution to the temple.

In statuary and painting, the Egyptians had a style of their own, though this is true, as previously suggested, of all the nations that made artistical efforts. Again, some strived to imitate nature, to give *real* representations of whatever became the subject of the chisel or pencil; others were *ideal*, creative. One charmed by truthfulness to nature; another sought excellence in brilliancy of colors or in classical figures, unnatural compositions, etc.

Very few forms of expression, it is said, first obtained in Nilotic sculpture. "About five or six, which were repeated over and over again, all of them of the most rigid symmetry, without any movement. No passion ever enlivened the features; no emotion of the soul ever disturbed the composure and archaic dignity imparted by the Egyptian sculpture."

The *position* of the statues was not much more varied. "They are either standing erect, the arms hanging down to the thighs in a straight line, (though occasionally the right hand holding a sceptre, whip, or other tool, is raised to the chest), the left foot always stepping forward; or the figure is seated, with the hands resting on the knees, or held across the breast. Another attitude is that of a person kneeling on the ground and holding the shrine of some deity before him. The representation of a man squatting on the ground and resting his arm on his knees, which are drawn up to his chin, is the most clumsy of the Egyptian forms, if the most natural posture to the race, being perpetuated to this day by the Fellaheen when resting themselves, whilst the statues in a crouching position are the most graceful, for their natural *naivete*. If we add to these few varieties of position the stone coffins, imitating the mummy lying on its back, we have exhausted all the forms of Egyptian statuary."

After sculpture among the Egyptians had reached a considerable degree of excellence, with reference to the most minute appreciation of individual and national character—had been marked by truthfulness to nature, with occasional efforts at embellishment, a period of deterioration is noticed. This commenced about the time of *Mennephtah*, the Pharaoh who undertook to prevent the Exodus of the Children of Israel; and consisted in a neglect of expression and individuality, and the introduction of a taste for external grandeur and colossal statues of enormous size. The artists seemed no longer to aim at creating satisfaction, but endeavored to excite wonder in the spectator. This state of things continued until about the time of the

Saitic Kings, before Christ some 700 years, when the taste of the artists seemed to change back to that of the *Cheops* dynasty. Besides rectifying some gross anatomical errors, such as the position of the ear, etc., that had been formerly committed, the artists turned their attention to the study of nature. The forms of the human body become less rigid, the muscles better rounded; indeed, features, extremities, and all other parts again assumed the *real* rather than the *ideal*. A still later period in Egyptian history—the period when Greeks and Romans figured in the political history of the country—the period of the Ptolemies, the Greco-Egyptian Kings, shows a hybrid style very much inferior to the native, really a degradation.

Such is a very brief sketch of the plastic efforts of the race first in science, art, and civilization, a race that reached its period of manhood and began to decline before anything is known of any other. The degree of excellence which it attained in both painting and sculpture, no less than its sepulchre structures, continue to be subjects of admiration and astonishment throughout the world.

ART AMONG THE SHEMITES.—The term Shemitic, as used by ethnographers, is applied to designate the Syro-Arab nations—the Syrian, Phœnician, Hebrew tribes, Arabs, etc. While it is true that the Shemites never exceeded thirty millions in number their migrations, deportations, colonizations, their wars and conquests have had the effect to disperse them all over the ancient world. They have been prolific, as we have seen, in the way of religions; they were the first to explore the Mediterranean and Eastern Atlantic. The Phœnicians first, it seems, coined money; they also created commerce. The Hebrews have always exhibited financial genius; and their influence in this respect is still felt throughout the civilized world. The Arabs have demonstrated themselves in all ages of the world as the destroyers of Idolatry and the civilizers of the negroes. To none of these races, however, does it seem that the world is much indebted for the cultivation of painting or sculpture. They never established a national style of art. Their deficiency is attributed to the prohibitions of the Pentateuch and the Koran. Better explanation is thought to be found in the want of artistical feeling among the nations for whom the laws were framed. What of plastic art the Hebrew nation possessed seems to have been borrowed from the Egyptians and Assyrians. The *Urim* and *Thummim* which adorned the breast plates of the Hebrew high priests, and that were so elegantly engraved, archeologists think bear a striking affinity to the Egyptian

Uraus and *Thmer*, symbols of power and truth. Again, the vision of the prophet Ezekiel is thought to be founded on things entirely Assyrian. The *eagle*, the *winged lion*, *bull* and *man*, which became the symbols of the four Evangelists, are set down by those proficient in reading ancient signs, as also of Assyrian origin.

The Shemites being themselves destitute of art, it seems that we are entirely indebted to Egyptian and Assyrian monuments for the preservation of the ancient Shemitic cast of features, which, it is said, has remained unchanged for centuries.

The *Assyrians* were somewhat original in their artistic efforts, though much of what the antiquarian observes seem to have had archetypes in Egypt. One of the peculiarities of Assyrian sculpture is a prevalent taste for ornament. Almost every specimen of art is decorated in such a way as to contrast very strongly with the nakedness of Egyptian statues. Everything, indeed, is princely. "The king, according to the reliefs, sums up the whole national life of Ninevah. Wherever we look we meet exclusively with his representations; surrounded here with *his* court; there with *his* army, receiving tribute, and concluding treaties," etc., etc. Everything, it is said, reminds the observer of the pomp, splendor, and etiquette of eastern courts. "The proportions of the human body are somewhat short and heavy; less animated in their action, but more correctly modeled than in Egyptian reliefs."

Among the *Persians* the fine arts were most likely introduced by Egyptians and Assyrians. At first really, a daughter of the Assyrian, modified by Egyptian influences, Persian art emancipated itself from its early traditions by a purely natural development. Among its natural characteristics was a *high degree of elegance in drapery*.

The sepulchre of Darius contains one of the most valuable documents of Ethnology, recording *four* types of man—a Lydian, Scythian, Negro, and Chaldee. The group of portraits represents the four different nationalities, that at the time were subject to King Darius. It is very worthy of remark, that the cranial and facial characteristics of the types given in this group, hewn upon the rock about 450 years before Christ—answer for these races of the present day; the negro and Scythian or Turkish skulls, contrasting very decidedly with the Chaldean and Lydian—then again the latter with each other.

After the dissensions and profligacy of the royal house had checked the progress of Persian art, it remained stationery until the Greek

generals destroyed the independence of the Empire, when the nationality of sculpture was destroyed, and Greek impress became manifest in everything that was done.

ART AMONG THE GREEKS.—Quite a controversy has existed in regard to the origin of Greek sculpture. Some maintain that it was indigenious ; others that it was imported from Egypt ; others that the first lessons were derived from the Assyrians. The nation being of comparatively recent origin, no work of art makes its appearance for some two thousand years after the Egyptians had reached their highest degree of perfection. It is not unreasonable, therefore, to suppose that the infantile and adolescent stages of the modern nation should receive greater or less degrees of impress from those that had already graduated. This supposition is in a measure confirmed by the circumstance that in examining some of the oldest specimens of Greek workmanship, Egyptian and Assyrian types have been discovered. There is, indeed, sufficient evidence to believe that the Greeks gained their first acquaintance with the different mechanical processes of sculpture, carving, moulding, casting, and chiseling, from foreigners, though too proud to acknowledge their debt. In further confirmation of the view we have been advocating, it is stated that the opening of Egypt gave a very sudden impulse to Greek art.

“The earliest of all the existing Greek marble reliefs is the fragment of a throne found in Samothrace, which belongs to the beginning of the sixth century before Christ.”

No sooner were artistic efforts properly inaugurated among this people—to whom the world is indebted during the short period of their national independence, for more that pertains to the ennoblement of the human race than to any that has ever existed—than purely national proclivities made their appearance. “The Greek, unlike the Egyptian, had nothing at first to do with *portraits*; it was not the king, but the hero and the god who became the objects of the artist’s creation. Not less striking is the complete absence of landscape in Grecian art. The human form and animated nature are for the Greek the exclusive object of representation; accordingly he personifies day and night, the sun and the moon, time and the seasons, the earth and the sea, the mountains and the rivers; he gives them the features of men ; but the human figure he draws is always a type of the race, not the effigy of an individual.”

Unlike the Egyptians, who represented every thing as motionless, passionless, as though dead, the Greeks seemed to impart life to whatever they touched with the chisel. Of Dadalus it is said, who flourished about three centuries before the Christian era, that his genius made statues "*to walk, see and speak.*" Greek art seems to have received a very decided impulse during the administration of Pericles. At this time Phidias, who may be regarded as the author of the *ideal* style, flourished. During Pericles' administration, which only lasted twenty years, Athens, it is said, produced more splendid works than Rome, the mistress of the world, in seven centuries. So predominant was his taste for the *ideal style*, that Phidias never made but a single specimen, a boy, from life. His brilliant career was devoted to the introduction and perfection of this style. He made two chief *ideals*—Minerva and Jupiter—the former for the Parthenon in Athens; the latter the famous Olympian Jupiter at Elis. Both were wrought in ivory and gold. The god was forty feet in height and said to have been beautifully formed. The expression of Jupiter was a union of power, wisdom and benevolence. In the representation of gymnastic and athletic exercises, Polycletus and Myron figured. The former created the most admired specimens in the *gymnastic* department, one of which became canonical as the model of all proportions; the latter created the *athletic* class, and among his works we have the ideal of Hercules. About one hundred years after Phidias, and some three hundred and fifty before Christ, we have the introduction of a new era in Greek art, the era, as it was called, of the *beautiful*. In this era beauty, symmetry, proportion, gracefulness, were most attended to, and it was during this period that the nation attained its greatest excellence, executed its best specimens. Scopas and Praxiteles were the leading artists of this era, and contributed most to its introduction.

From this period forward, we begin to notice among the Greeks an increase in taste for colossal statues, and as a consequence, as in Egypt, a decline, or rather a corruption of art, from which the nation never recovered. Excess of ornament, the error of the Babylonians, was also connected with the downfall of art among the Greeks.

Those who have studied the agency of this nation in sculpture and painting, the most excellent of the arts, award to it the highest place among those of ancient or modern origin. As before remarked, *Greek artists make no portraits*. Their statues, reliefs, etc., are not individual effigies, but national types. The head of the conqueror

of Persia, as a consequence, is not distinguishable from that of his mythic ancestor Hercules. The idea seemed to have been that excellence consisted in grandeur, beauty, symmetry, gracefulness, etc., and in these respects they not only have never been surpassed, but are regarded as having furnished the archetypes for all succeeding artists. The Egyptians, in a word, were imitative, following nature; the Assyrians gaudy; the Greeks creative.

ART AMONG THE ITALIANS.—On the downfall of Greece, plastic art migrated to Italy. The Greeks, who by their own internal quarrels broke up the most valuable civilization ever upon the earth, after the catastrophe, went to Rome and took with them their arts. Then again, after the Macedonian war, before Christ two hundred years, the Romans began to carry off the statues from Greece. Æmilius adorned his triumph of three days with immense treasures of Grecian statues. The *Forum Romanum* was adorned with three thousand statues, and twelve thousand placed in the capital dome. Some one has said that Roman arms conquered Greece, and then Greek art conquered Rome. Greek sculpture found in the ancient Etruscans, a hardy and enterprising nation, the *English* of antiquity, and who were spread over Italy from the Po to the Tiber, some native talent and a small degree of proficiency in the arts. To the expatriated Greeks, therefore, and these Etruscans, Italian or Roman art is mostly if not entirely indebted for its origin, and the degree of perfection it has attained. "Two centuries, however, carry us from the beginning of Roman art to its decay; its full bloom lasted only for the score of years which embraces the reign of the emperor Trajan, since under Hadrian it lost its Roman features and was swamped by an elegant and refined imitation of every style of art. About the same time that the imperial throne fell into the hands of Asiatic Syrians, of Africans, of Arabs, Roman art became barbarous and revived only when Justinian and his successors, a new nationality, the Greco-Byzantine, consolidated and chrystalized itself under the influences of Christianity, out of the mixture of all the races in the Roman empire."

"The principal features of Roman art are a somewhat ponderous dignity, and a want of practical inspiration, but withal a close imitation of native national truthfulness and regard for individuality. *

* * The composition of Roman works of art is heavy, the execution often over-polished and empty. While the Greek artist selected his subjects from mythology, the Roman liked to represent sacrifices,

triumphal processions, military marches, battles, marriage feasts, etc. The Greeks idealized the features of great men ; the Roman did but ennoble the ugliness of old Tiberius, the idiocy of Domitian, the ferocious looks of Commodus and Caracalla. The Greeks made scarcely any distinction between the Greek and the barbarian—the same idealism surrounds them both and assimilates them to one another ; the Roman artist made a characteristic difference between the enemies of Rome and the *civis Romanus*.”

The Romans made portraits ; the Etruscans, like the Greeks, did not. The earliest of the authentic Roman portraits is that of *Scipio Africanus*. This, as given in the work before us, is said to be entirely individual, presenting that stern, energetic cast which fully expresses the Roman character. Scipio was said to be a good specimen of the Roman patrician type, for in his time the aristocracy had not lost its national purity by admixture with foreign blood.

We have thus made a very brief survey of the history of art among the *artistic* nations of classical antiquity, which brings us to about the commencement of the Christian era. Concerning the works of the different nations that have figured since this period, we expect to have nothing to say, our object being merely to notice the ancient character of the subject in its connections with ethnology.

We sum up with the conclusions :

1. That sculpture had its origin with the Egyptians, specimens being found that are the work of those who inhabited the Nilotic region some 35 centuries before the Christian era.

2. That each nation possessed what, for the want of a better name, may be denominated a *national type*. Each had its own views of what excellence consisted in, and no style ever flourished except on its national basis ; imitation of foreign forms always gave rise to deterioration.

3. Nations excelled, each in its own way, and on this account it is difficult to say which possessed the most merit, modern taste being the arbiter.

4. Deterioration in style was always, among all the nations, due to pretty much the same causes—departure from nature, want of anatomical fidelity, and too free indulgence in the Ideal or creative style.

5. The *types* of mankind, if iconography can be credited, were the same 5000 years ago as now. The three principal forms of the cranium, the *elliptical*, *pyramidal*, and *prognathous*, as figured by the oldest Egyptian artists, answer well for these types of the present day.

6. "If it should be found that, within the period of time to which historical testimony extends, the distinguishing characters of human races have been constant and undeviating, it would become a matter of great difficulty to reconcile this conclusion with the inferences obtained from other considerations."—(*Prichard.*)

AMERICAN NATIONS.—But little has been done by the archeologist in making out the history of the Red race, with reference to art. While no trace at all has been discovered among many of the aboriginal tribes of the two Americas, there are some that have left behind them relics that show the presence among them of artistic efforts. These, however, the historian, so far, is unable to connect with dates. The Aztecs, Toltecs, mound-builders of Mexico and Central America; and the Quichuas and Amayras of Peru and the Lake of Titicati, attained a low degree of culture, as indicated by the few specimens of their workmanship extant. The representations of human heads among these specimens show the constancy of the "Indian" type, and it is supposed go very decidedly to refute the theory of the Mongol origin of the Red men, and also that of Lord Kingsborough, who undertook to deduce the American Indian from the "lost Ten Tribes of Israel."

ART. II.—*Suit for Alleged Mal-practice.* Tried at May term of Common Pleas Court, Zanesville, Ohio. NATHAN VARNER *vs.* Dr. THADDEUS A. REAMY. Amount claimed, \$3,000.

Plaintiff examined.—Was riding in a sleigh; the horse ran away and threw me out, about two miles from home, and broke my leg; it was right leg; was broken about one-third of way between foot and knee. I was taken home immediately, and Dr. Reamy sent for; he arrived soon after I did; he lived about five miles from me; he said it was a bad break, but he would do the best he could with it; asked if I would sue him in case he failed to make the limb perfect; told him I would. (Here, by request of his counsel, exhibits leg to the jury.)

The Doctor wrapped my leg in bandages, and put it in box; it was broken on Thursday; on Saturday following, he took it out of that box, and put it in a larger one; he was assisted in the removal by several persons; leg was set on Thursday; the following Tuesday he

slit the bandages on the front part of the leg, and examined the same; said that all was right, and he was satisfied; he stitched the bandages up again; did not remove the box; he was to see me seven or eight times; in about three weeks the box was removed; starch bandage applied; then the leg was laid back in box; he said it must stay until the bandage was dry; I told him it hurt me; I thought the foot was too far to the right.

Must have been about three weeks from first confinement until he allowed me to use crutches; where starch bandage was applied there was a slight depression just below the fracture; my wife told him so; he said there was none.

He had other patients in the neighborhood; have received subsequent injury; it pains me in the ankle nearly all the time, and to the small of my back; am a farmer; not been able to work much since the injury. I tried to follow the Doctor's directions; raised body up in bed, by means of a rope through a hole in the loft; am thirty six years old; I thought the leg was shrunk a little when taken from the box; I told him it ought to be tied tighter; he said if tied too tight it would dwindle away.

Cross-examined.—The box had three sides; the foot-piece was some higher than my foot; the two sides were fastened to bottom by hinges; leg was wrapped several times with bandages; on each side was pasteboard and cotton; don't know whether more than one thickness of pasteboard or not; was a pillow in bottom of box; foot was tied to footboard; leg was raised first, box slipped out, and second put under; when he slit the bandages from the knee to foot, (on Wednesday), he said all was right; said it was straighter and longer than the other; his visits, at last, were more than a week apart; after he put it in new box, my wife called his attention to depression before named; I was in bed; did not sit up any that day; saw depression; sides of new box six or seven inches wide; was permitted to use crutches three or four days after starch bandage was applied. Here the leg was examined and carefully measured by Prof. Hamilton and Dr. Holston, assisted by several medical gentlemen.

The same leg was broken about six years ago; the part that comes down inside of the foot was broken off; was treated by Dr. Crist; Dr. Reamy was there when it was set; Dr. Crist made a good job.

Ques. Did not you say, after you were going about the last time, that Dr. Reamy had made a better job than Dr. Crist?

Ans. (Hesitates). Believe I did say it was as good a job.

Ques. Did you not say it was better ?

Ans. I thought it was better. I don't remember whether it was after I commenced going about or not. It pained me three days after Dr. Reamy set it, and three days when Dr. Crist set it; think it hurt me more after Dr. Crist set it, than Reamy; was more than a month after accident before I went to Mt. Sterling; Dr. Reamy resides there; had a crutch and a cane with me; used crutches until July or August; Doctor told me to be careful; was careful; was not intoxicated when in Mt. Sterling; did not walk without crutch or cane; went there on horseback.

Ques. Did you go coon hunting any night ?

Ans. I did in July; was out nearly all night; we drank some whisky; cut three trees; caught the coon.

(Questioned by counsel for Plaintiff). Was no shortening after the old fracture; did not bruise the leg in the coon hunt; Dr. R. did not complain of improper use of leg; he saw it several times before July; said it was not exactly right.

Question again by counsel for defendant. The Dr. frequently tightened sides of the box. Pain has never entirely subsided; last fracture was worst. Ankle always remained large after first fracture did not leave me; always would give way when I stepped with outside of the boot on lump of ground.

Second witness. N. Matthews. Live 4 or 5 hundred yards from Varner. Was present at the setting and assisted by pulling at the foot. Dr. brought box with him. He put on wadding, bandages and pasteboard—laid it in the box. Dr. said box was too small. I don't know size—thought it too small. Was probably 3 hours after Dr. arrived until done setting. Patient complained of him being too slow. Dr. said he must have time to do it right, or he might be sued for mal-practice. Dr. ordered application of vinegar. I was there about twice a week. I made the crutches for Varner—was about 6 weeks after the accident. Danl. Wright was not there at any time when I was. First time I saw Varner away from home he came to my house—was perhaps two months after the accident. There appeared to be a lump size of a hickory nut on large bone just above fracture. Don't remember whether starch bandage was on or not. Don't know whether Dr. had any other patients in neighborhood or not.

Third witness. Amos Varner—am brother to plaintiff. Was present at setting of limb. In about an hour and a half after Dr.

arrived he commenced bandaging the leg—don't know whether pasteboard was applied before bandage or after. Bandage was applied 3 or 4 double-extended from foot to half way up thigh—was lapped round and round the limb. Piece of muslin was 9 or 10 feet long. Dr. said he had set a boy's leg in the box. Patient complained of Dr. being too long setting leg. Dr. said he must have his own time—wanted to make as good job as possible. Dr. asked if he would be sued for mal-practice if the leg should not be right. Plaintiff said positively he would be, d——d if he would'nt. I and my brother are not very friendly. I saw the patient's leg on 12th of September. May have had my hand on it—not certain, thought it a bad job; heard it was not right—looked as if it was out of place: offset on the bone that astonished me; was thick as my finger. Saw him walk—was using his crutches.

Fourth witness. Martha Kreager—am sister of plaintiff's. Was at my brother's on Tuesday after leg was broken. Dr. was there. He was cutting bandage on front of leg when I went—cut them through to the skin; did not give any reason, only that he wanted to see if all was right; said he was well satisfied with its condition; said he guessed would be an advantage that leg was broken, as he believed would be longer than the other one, as it would be straight and other was crooked. [Cross examined.] Dr. did not remove leg from the box at that time.

Fifth witness. Margaret Varner. Am sister-in-law to plaintiff. Was there when Dr. cut the bandages. I asked him why he opened it. He said the muscles were strong and might have displaced the bones, and if anything was wrong he could very easily correct it, as the bones had not yet began to unite. Said the patient needed nothing but some pills.

Sixth Witness. Stephen Kreager—am brother-in-law to the plaintiff. Was present at examination by cutting bandages. Dr. said it was not customary to open bandages so soon, but he was anxious to know if all was right. [Cross examined.] Did not remove leg from box; said opening bandages would not displace bones, providing leg was not moved from box

Seventh witness. John Varner. Am father of plaintiff, or so called, and never have denied him; never noticed the leg all summer; noticed it particularly on day of sale, (September,) was an inch or more shorter than other leg, (witness becomes warm) *I was astonished!*

SECOND DAY—PLAINTIFF'S TESTIMONY.

First witness for defence called. Dr. T. A. Reamy—have been practicing physician little over 4 years. Saw the fracture of Mr. V's leg six years ago. Was there as a student of medicine; assisted my preceptor (D. D. L. Crist) in setting same; accident was fracture of lower end of internal bone (tibia) of right leg; internal malleolus was broken off, obliquely extending up shaft of the bone $\frac{3}{4}$ perhaps of an inch—so said Dr. Crist. (Here Dr. exhibits articulated bones of left leg to jury and points out the fracture.) Was treated by straight splint; remained enlargement at site of fracture after recovery; was also dislocation of ankle outwards, all caused by same force. Patient told me during treatment for second injury that his ankle had always been enlarged since first injury, and that it always gave way when he stepped with the arch of the foot on an elevated surface; that this also generally gave him pain.

On evening of 14th February, 1856, about half-past 7 o'clock, was called upon to visit Mr. V.; was perhaps about an hour going—found him in a state of intoxication; fracture of both bones below the knee of right leg; larger-inner bone (tibia) was fractured obliquely at about the junction of lower and middle thirds, commencing on internal face (the force causing the injury being at ankle and in front) and extending upward, backwark and outward. The fracture at posterior and external faces, being about $\frac{3}{4}$ of an inch higher than at internal face. (Here Dr. again explained by the skeleton of leg.) Also, fracture of the smaller or outer bone (fibula) in two places, each transversely and almost corresponding respectively with superior and inferior limits of fracture of tibia. Here by request of counsel, Dr. again describes fracture that occurred six years ago; was dislocation of both bones of leg outward at ankle and foot turned inward.

I proceeded to reduce the fracture by extension and counter-extension; applied pasteboard splints on either side of limb, and applied roller from toes to half way up thigh; made holes in pasteboards to admit the malleoli, and protected by cotton; then applied fracture box. (Here, by request, describes box.) The box used in this case was made for a boy 16 year old, and was rather small for Mr. V., he being a large man and very bow-legged. Box answered very well for time being, but was too small to allow it to remain many

days, as could not make proper lateral pressure, being the only box I had, I concluded to use it until I could see him again.

Being sure that when the pasteboards became dry (being moistened when applied) they would afford perfect security against displacement of bones during removal to larger box. Don't know that I should have waited to make a larger box that night, even if I had had all necessary conveniencies for so doing. Put cotton and rags in the box; would not admit a pillow; made necessary pressure by compresses at proper points, after leg was in box. It was a simple, or simple comminuted fracture. Told him it was oblique when I set it, and that oblique fractures of the leg almost always left more or less shortening and deformity, that never could be made perfect; said I suppose if it should not be perfect you will make me pay for it. Yes, said he, make you pay like *hell*. I then told him the leg would almost certainly be somewhat deformed, and if he wished a surgeon to agree to effect certainly any other result, he might send for some other one, for I could assure him I would not agree to any such arrangement. He then told me to go on and set the limb, do the best I could with it and he would be satisfied with the result, be as it might. Found some difficulty in tracing short fragment of fibula, after considerable extension was made, finally succeeded very well. Thought it all a joke about the threatened suing; saw the case following Saturday morning; examined and found pasteboard splints quite dry and sufficiently firm to afford complete security from displacement. Prepared larger box by arranging a pillow in bottom of it and removed the limb to same; was assisted by several persons; don't remember who; was very careful—patient complained of no pain during change; secured sides of box by strips of muslin through holes at top edge of same; applied compresses above and below as needed, from time to time; could easily see condition of limb in front without removing box. There was depression in soft parts an inch above the fracture, made by one of strips confining sides of box, to this his wife directed my attention. Bones were in perfect apposition; don't know when he commenced using rope from loft. It is usual to make some contrivance to allow patients to move a little. He said this caused no pain; leg did not swell much as is common in such cases. Muscular contraction is different in different subjects, even very same kind of fracture; in this case was not very powerful, although very muscular man; examined by slitting bandages along spine of tibia; this was 6 or 7 days after acci-

dent ; is usual and necessary to know how all is doing about 9th or 10th day, as union usually commences about this time. Closed bandages by needle and thread ; did not remove box or leg ; bones were in perfect apposition ; bandages were moulded to limb ; saw him every 4 to 6 days. In 5th week examined, removed all dressing, found union of bones to an extent that in my opinion would have allowed the weight of limb to have been raised by foot without injury. This was not attempted of course. I now applied heavy starch bandage, spirally from foot to half way up thigh, down and up ; applied dry roller first next the skin ; placed in box again, ordered to remain until the bandage was dry and unyielding, which would be in 3 or 4 days ; then allowed him to use crutches, having limb suspended by sling from neck ; cautioned him not to attempt to bear weight on it yet ; starch bandage remained on 4 to 6 weeks ; don't remember precisely how long ; visited him some 9 times in all, but called very many times as I was passing to see other patients in neighborhood. (Here by request of counsel the Dr.'s day-book was examined, which showed that starch bandage was applied 17th of March.) When I again saw him the starch bandage was completely dry and secure. He followed my directions so far as I know ; never complained of my treatment ; the starch bandage was removed ; condition of limb better than I expected to find ; no perceptible deformity at all. Four months after injury slight enlargement at point of fracture ; 6 or 7 months after injury by measurement I discovered shortening of about $\frac{1}{4}$ of an inch ; thought I could see evidence of slight deformity about 1st of August ; deformity was greater in September. He said to me it was not just right. I assured him at this time it would be a good practical limb with care. He is an intemperate man ; have often seen him intoxicated. (Questioned as to repair of bone.) Inflammation subsides in a few days ; nothing done for a few days more ; the organization of lymph commences and continues to pass through different changes until bone is produced. Bone does not unite by provisional callus in man, except in ribs or where there is great motion, clavicle perhaps. Union occurs by a deposition and ossification of material immediately between the ends of the bones. Material is furnished by bone, muscle, blood-vessels and all parts surrounding injury. In lower animals bone does unite by provisional callus ; was formerly supposed so to do in man ; is generally 5 to 6 months in man in completely ossifying, sometimes longer ; but if a case does well, is sufficiently strong for practical

use long before this. I don't know whether broken bone ever becomes perfect.

Cross-examined. Am a graduate of Starling Medical College. Have not read more carefully since institution of this suit with view of being a witness in the case, but have had my attention turned to authorities on this subject in particular, for reference by my counsel; am in the habit of reading surgical works—always read for information. Inclined plane had no preference in straight position in this case. Every sensible and educated surgeon has a right to select his apparatus to meet the necessities of each case, and to change or alter to meet indications as they may arise. No one but himself has any right to judge or dictate. He is to be governed by no specific rule or book, but he is to be governed by common sense and general principles.

What authors have you studied?

Druitt's Modern, Chelius, Miller's Principles, Paget's Surgical Pathology, Sargeant's Minor, and others.

Think I did visit patient on the 1st of March; ceased to visit him, some time after starch bandages was applied, continental surgeons often apply starch bandages at first and use nothing else—Velpau does.

Second witness. John Crown, Sr. Patient drinks, have seen him intoxicated. About the last of May or the 1st of June, heard him say his leg was straighter than before it was broken the last time; was satisfied as to treatment, &c.

Third witness. John Crown, Jr. Was present at setting of the limb. Thought from smell of his breath and conduct, he was drunk when they took him home. He told the doctor he would make him pay like hell if his leg was not straight. The doctor said he would not set it then, he might send for somebody else. Varner then told him to go on and set the limb and he would be content.

Fourth witness. Andrew Wise. My son had his leg broken in July; Doctor Reamy set it. Nathan Varner came to see my son soon after the accident; told my son that he would lend him his crutches soon; that he (Varner) could walk without them then, if he were not afraid; said all was right. Reamy had done a good job and my son's leg would be all right. Varner stood up on his leg and slipped up his pantaloons and showed me his leg. I could see no deformity, only a slight enlargement at point of fracture. Varner was drunk as he returned from Mt. Sterling. Is an intem-

perate man ; saw him in September ; he said he had been out to settle with the doctor ; said his leg was doing well and gaining strength very fast ; have often seen him drunk.

Fifth witness. Moses Atwell. Saw Varner in Mt. Stirling about the 1st of July, thought him drunk ; cautioned him as to his leg ; got on his horse without help.

AFTERNOON.

Reuben Norman. About the last of April or 1st of May, saw Varner in Mt. Sterling, he was a little tight ; was using his foot on the ground, but used his crutches ; saw him walk from the east end of town half way to Beem's tavern, (100 yards) without using crutches at all ; was so drunk as to effect his gait.

Sixth witness. George Varner. Am cousin to the plaintiff ; was with him coon hunting ; was in August ; out all night ; had whiskey ; cut three trees ; caught coon ; I fell down over logs and hurt my shins ; Nathan had his crutches ; don't know as he fell.

Seventh witness. P. S. Reamy. Am brother of defendant ; saw plaintiff in September going from Zanesville to Mt. Sterling ; saw him get out of wagon and go in grocery ; staggered some, had been drinking but was not very drunk.

Eighth witness. Thos. Sears. Saw Plaintiff in Mt. Sterling about first of June ; thought him half drunk ; saw him drink.

Ninth witness. A. M. Field. Saw Warner at Mt. Sterling sometime in summer ; he was not dead drunk, but was not sober.

Tenth witness. Harris Batson. Saw Varner at Sterling about last of July ; thought him a little up-and-coming ; drank with him ; said he could walk as good as me ; jumped over a manure pile by aid of his cane ; tried to walk curb stone without cane ; friends would not let him ; he was pretty well sprung when he left town.

Eleventh witness. Madison Burrier. Was in the coon hunt ; saw measurement of limb before named in September ; could see no shortening.

Twelfth witness. Simon Hill. Saw plaintiff early in summer ; showed his leg ; said it was doing well ; I could see nothing wrong ; swelled some.

Thirteenth witness. Hannah Boyer. Saw Mr. Varner in September, on day of his sale ; showed his leg ; said it was some crooked, but it had been set straight and he had hurt it running about, and made it crooked.

Fourteenth witness. Sam'l Tanner. Have been in Union county since Mr. Varner removed there ; noticed that he walked lame ; often saw him drunk last winter.

Fifteenth witness. Dan'l Wright. Saw Varner after leg was set by Dr. Reamy ; V. said Reamy had done much better yet than old Dr. Crist had done.

Depositions of Thomas Varner and others were read. Thomas Varner testified that he saw Dr. Reamy measure the limb in September ; there was about one-fourth of an inch shortening as compared to sound limb.

Jas. Coones. That V. told him after going about, Dr. R. had done a first rate job ; made his leg better than when broken before.

Prof. J. W. Hamilton was now examined.—Am Professor of Surgery in S. M. C.; have examined Mr. Varner's leg ; deformity is very slight ; he is very bow-legged ; there is slight enlargement of the ankle ; shortening of the tibia ; 7-16 of an inch ; nothing that could be called over-lapping of the bones ; I can detect no deformity of the smaller bone-fibula ; in fracture of the kind described by Dr. Reamy, the fracture box is the most common apparatus ; next the inclined plane ; but the proper application in each particular case must be left to discretion of the surgeon in attendance ; the object of any apparatus is to keep the bones in proper place ; I believe in this case the fracture box was the very best apparatus ; Drutt's Mod. Surgery is of the very highest standing ; Miller's Principles has stood very high ; Chelius is an eminent work ; Sargent's Minor Surgery is directing the surgery of this country ; I think no better selection of surgical works can be made than Dr. R's. It is customary to place pillow in box before putting limb in it ; sometimes we apply bandage, sometimes none ; pasteboard splints might give all necessary protection in some cases without a box ; the foot is tied to footboard to prevent contraction and preserve proper position. If pasteboard was applied on Thursday evening, the limb might very safely remain until Saturday without any box at all. It is recommended by some authors not to make any appliance for eight or ten days after injury. It would be perfectly safe to remove to a larger box on Saturday, after the limb was set on Thursday, particularly when protected by pasteboard, as in this case. I frequently open box, if for nothing else but to admit air. Any displacement could be discovered if there was not too much swelling. If displacement were produced there would likely be pain. My impression is

that the doctor visited this case about as often as was necessary. If attendants are very ignorant or careless, more frequent visits would be prudent. Visits are only to see that all is right. In some cases the box should be continued longer than in this case. But in others we have to lose sight of the limb and promote the general health by fresh air, exercise, &c. In such case, of course, the box must be removed earlier : sometimes the limb becomes small and the joints stiff, despite the very best treatment. It would be good practice to apply starch bandage at any time ; this to be decided by the surgeon in attendance.

The treatment of Dr. R. in this case was well conducted. In some hospitals they never apply either box or splints. After an injury, as fracture of bone, lymph is thrown out from all the surrounding parts ; it all looks alike, although produced by different tissues ; as it goes on in process of organization, it becomes fibrous, and in different localities gives evidence of its future destiny. By examination under the microscope, where bone is to be produced we see the corpuscles peculiar to that structure—muscle, nerves, &c., in same way—change after change gradually occurs until all the parts have approximated their original condition, as nearly as may be. The process of repair and remodeling in bones of the adult human is perhaps not complete short of one or two years. If the bones were not in apposition there would always perhaps be enlargement. In case of oblique fracture of bones of the leg, as a general thing the limb would not be strong as ever under one or even two years. I doubt whether we ever had oblique fracture without some shortening. In very oblique fracture I don't believe we ever have a perfect result. I would call one-half an inch shortening a very good result. In seventy two cases reported by Dr. Frank Hamilton, from practice of different surgeons, including simple, compound, comminuted, oblique and transverse, there were but twenty-two perfect results, fifty imperfect.

I approve the general course of the Dr. in this case, and do not take exception to any detail of his treatment. If I found at the end of four or five weeks that the limb would bear considerable handling, and motion without pain, or yielding at point of fracture, I would not hesitate to apply starch bandage. Starch bandage is to secure the limb and prevent swelling. Shortening is not always the result of improper treatment, but may occur from improper use of limb four or five months after injury. Walking when it is weak may in-

crease shortening. From eight to ten weeks is often sufficiently long to continue treatment. Swelling may continue a year or more, particularly if the patient be intemperate. Swelling from limb hanging down will subside at night ; but from injury will continue three or four days.

Cross-Examined. My opinion of Dr. Reamey's treatment was founded on statements made by him before this jury, and not from conversation with him previous to this trial. No skill can avoid some deformity if fracture is very oblique. If the box was so small as to cause pain, I would make another adjustment at once. In this case the starch bandage was applied sooner than is usual, but it is sometimes applied at once. Patient may go about on crutches soon as bandage is dry. Some do not go lame when there is an inch or more shortening.

Samuel Hibbs. Am 45 years old ; had my leg broken below the knee ; more than an inch shortening causes no inconvenience ; my neighbors do not notice it.

Spencer Brown. Am 57 years old ; had my leg broken below the knee obliquely 27 years ago ; an inch shortening ; no lameness ; no one notices it.

Dr. Reamy now insisted that Drs. Hildreth, Holston, Culbertson and Day be examined ; but his counsel, (Hon. R. Stilwell, Gen'l Goddard and Capt. Hazlett, Esqrs.) assured him his defence was secure. The case was submitted without argument. Jury did not remain out three minutes. Verdict for defendant.

Reported by Dr. Trecize.

ZANESVILLE, May 27, 1857.

Dr. Reamy is informed by the plaintiff that Dr. M——, of Union county, Ohio, advised the suit ; but not knowing whether such is the fact, he will not give his name to the profession.

It is also to be hoped that Wm. H. Ball, Esq, of Zanesville, who undertook the prosecution, was ignorant of the disrepute attending the prosecution of so false and unwarrantable a charge.

ART. III.—*Case of Stricture of Æsophagus*. By C. H. SPAHR, of Jamestown, Ohio.

PROF. DAWSON:—There has been so much said and written upon indigestion and its consequences, that it seems to me that anything upon the subject from a lay member could scarcely receive any attention. However, in compliance with a promise, I proceed to give you an outline of a case of more than twenty years' duration.

Mr. S., Aet. 43, of bilious temperament, farmer by occupation, of active habits, became affected with what was called Indigestion. From 1830 to 1836 or '38, he labored under the symptoms common to that disease. About this time his condition was very much improved by the use of vegetable tonics and antacids. From 1839 to 1843, he used no medicine except aperients, to overcome a costive condition of the bowels. In the fall of 1843, all the symptoms which had been present previously, made their appearance, with the addition of a burning sensation (using his own language) throughout the entire length of the urethra, while voiding urine, and for a short time after. This condition of things continued almost one year, when his health improved very much by the use of tonics and diuretics. His health remained moderate up to fall of 1848, when he again relapsed into a condition nearly allied to the former, with the addition of a spasmodic contraction of the *æsophagus* when nutriment was taken. Frequently, the first effort at swallowing food was followed by its regurgitation so soon as the food had reached the cardiac orifice of the stomach. At other times he would eat a hearty meal without any difficulty being experienced.

This condition continued up to the fall of 1855, when, in addition, he again complained of a burning through the whole length of the urethra, and in the region of the bladder. The urine being allowed to stand for half an hour, a lateritious deposit took place, with a quantity of mucous. The obstruction in the *æsophagus* now became more troublesome, there being a sense of obstruction about the cardiac orifice whenever any solid food was taken.

After introducing a quantity of food into the *æsophagus*, it would pass into the stomach. The difficulty with the urinary organs again yielded under the use of tonics and diuretics, without any improvement in deglutition.

There was now a constant pain and tenderness in the epigastric

region. Under the use of the foregoing remedies, with the addition of counter-irritants, the tenderness subsided, and food was taken with more ease.

This improved condition lasted but a few months, when there was an aggravation of the trouble about the stomach and œsophagus. Remedies now failed to exert any control over the disease. The stricture became permanent; the pain constant, with tenderness on pressure. It now appeared that no solid food entered the stomach, and but little fluid.

He was then confined to soups, which, after a fortnight, could not pass into the stomach.

On the 9th day of May, 1856, he ceased taking anything but water, a teaspoonful at a time. From this to the 9th day of June, not even water passed into the stomach, and, from exhaustion, on this day he died. I should have said there was no thirst during his entire illness, and but little appetite.

Autopsy twelve hours after death. The œsophagus, from above downward, presented the following appearance: At the upper portion of the lower third, a dilatation commenced, which continued to within two inches of the opening into the stomach. In the centre of this dilatation, the œsophagus was more than two inches in diameter, its circumference being six and a half inches. From the centre of the dilatation, passing down, the œsophagus contracted, and, one inch from its entrance into the stomach, the diameter was only one-half inch, which stricture continued into the stomach. The coats of the œsophagus, at the dilatation, were attenuated; at the stricture, thickened. Where the stricture existed, the mucous membrane was, to a small extent, destroyed by ulceration, the edges of which presented no traces of recent inflammation. The stomach contained a small quantity of yellowish fluid. The mucous membrane of the stomach was in a healthy condition, with the exception of the pyloric extremity, which presented some ulcerated patches. These ulcerated points continued into the duodenum about two inches. The mucous membrane of two inches of the first portion of duodenum, was nearly all destroyed by ulceration, yet the ulcerated edges did not present a cicatrized appearance. The remainder of the duodenum presented a melanotic hue, without any ulceration or softening. The liver was very much congested. Gall bladder full to distention, the bile of the consistency of common tar. The mesentery, the whole length of the jejunum, presented a dark, ragged appearance,

yet not easily torn. Kidneys, bladder, pancreas, &c., &c., in a healthy condition.

There are at least four points of interest in this case :

1st. The dilatation and stricture, which converted the œsophagus into a kind of proventriculus, such as we have in birds.

2d. The denuded condition of the muscular coats of the œsophagus, stomach and duodenum, without any well-marked traces of inflammation, except the points ulcerated.

3d. The melanotic hue of the duodenum.

4th. The length of time the patient subsisted upon the use of so small a quantity of nutriment.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

ART. I.—*On the Evil Effects of Marriages of Consanguinity.* A Paper read before the Louisville Medical Club, by S. M. BEMISS, M. D.

“ They breed in-and-in, as might be known;
Marrying their cousins, nay, their aunts and neices,
Which always spoils the breed if it increases.”

Some facts illustrating, in a remarkable degree, the evil results of marriages of consanguinity, fell under the observation of the writer several months ago, and determined him to collect others of a similar character, and endeavor to arrange them in such a form as to warrant some definite conclusions upon this important subject. The collection of original facts connected with these marriages is a matter of difficulty and delicacy, and oftentimes as disagreeable as it is difficult and delicate. We can seldom gain information in reference to their history and results from any source so exact and reliable as from the family itself; and such is frequently the secrecy observed by relatives in regard to these revelations, that we are unable to obtain statistics sufficiently minute to afford a basis for positive conclusions. Such statistical information as my paper contains may, however, be relied upon as strictly correct; for I have at once rejected all presented to me in such a manner that I was not able, from my knowledge of the informant, to endorse as entirely to be relied upon. One other difficulty met with in a comprehensive presentation of this subject, is the poverty of its literature; for, though long and able treatises have been written upon the best methods of preventing or ar-

resting the deterioration of domestic animals, by the introduction, from time to time, of new crosses into their respective breeds, yet the question of degradation of numerous families of the human species, by neglect of similar counteracting influences, has rarely been a subject of literary or medical discussion. Nevertheless, the opinion is strictly tenable, however humiliating it may be to our pride, that the rules which govern the procreation of species are not essentially different in man and domestic animals. This want of medical research upon the subject in question, does not proceed from the novelty or recent origin of the truth just stated, for Rilliet has well observed, "No one can claim priority of the idea, when its antiquity is such that we cannot trace it to its source."

In primitive ages, marriages between near blood relations were occasionally necessary to the perpetuation of the race; but it is very propable that their abuse led to the early enactment of laws to establish the degrees of consanguinity, beyond which marriages might be consummated without fear of perverted sanitary condition in the progeny. It is, by no means, an ascertained fact of history, that these early laws of incest owed their origin to physiological observations; but it seems to me entirely reasonable to infer that, witnessing the pernicious effects of such unions upon offspring, first suggested the establishment of laws to prevent the continued repetition of the evil. Those were ages in which physical force had not been superseded by the inventions and mechanical appliances of the present day; and the power of a community was measured by the amount of muscle under its control. Legislators, who contended that "walls of men were better than walls of stone," would certainly exercise the most sedulous care to maintain, so far as practicable, the physical integrity of their people. In further proof of this inference, Socrates, when inveighing against the incestuous marriages that were sometimes practised at Sparta and Athens, says, he regards them as "prejudicial to the healthy propagation of the species."—(Rilliet.)

The laws of Moses interdicted marriages within the third degree of relationship. The Roman laws were more strict in this respect in former than in later times. Plutarch says, "In ancient times the Romans abstained from marrying their kinswomen in any degree of blood; as they at present forbear their aunts and sisters. It was late before the marriage of cousins-german was dispensed with."—(Janeway.) The Catholic Church, at an early period, opposed itself to blood alliances. Pope Gregory the Great, in proscribing such marriages, gives, like Socrates, a physiological reason: "*Experimento didicimus ex tali conjugio sobolem saccrenere non posse.*"—(Rilliet.)

References may be found to the unfortunate influences of marriages of consanguinity upon offspring, in various medical works of the previous and present century,* but no facts are adduced to support the conclusions of the authors; nor have any statistics, illustrating these effects, been presented to the profession, so far as I am

*Mason, Good, Combe, Barlow, &c.

aware, except some facts included in Dr. Howe's valuable reports on idiocy.

By much labor, I have obtained statistical accounts of thirty-four marriages of consanguinity. Of this number, twenty-eight were of the third degree of the civil law, or between first cousins; and six were of the fourth degree, or second cousins. Of the total number of marriages, twenty-seven were fruitful and seven sterile. The twenty-seven fruitful unions produced one hundred and ninety-one children. In only thirteen of these marriages was the sex of the offspring reported, giving forty-nine males to forty-two females. Of the twenty-eight marriages of the third degree of relationship, twenty-three were fruitful and five sterile. Of the six marriages in the fourth degree, four were fruitful and two sterile. In both these latter instances of sterility, the female was the product of a marriage of consanguinity. The relative proportion of children to the total number of marriages was as 1 to 5.6. The average fecundity to each fruitful union was seven, and a slight excess. The average births to each fecund marriage in the third degree of kinship, was 6.87, nearly. The average number of births in the fruitful unions of the fourth degree was $8\frac{1}{2}$.

Of the 192 children resulting from these marriages, 58 perished in early life. In 24 of the 58 deaths, the causes are stated as follows: of consumption, 15; of spasmodic affections, 8; of hydrocephalus, 1. Of the 134 who arrived at maturity, 46 are reported as healthy; 32 are set down as deteriorated, but without absolute indications of disease; and 9 are returned without any statement as to health or condition. The remaining 37 all possess such abnormalities as to render them the subjects of particular observation. These are classed as follows: 23 are scrofulous; 4 are epileptics; 2 are insane; 2 are mutes; 4 are idiots; 2 are blind; 2 are deformed; 5 are albinos; 6 have defective vision; and 1 has chorea.

In point of fecundity, these marriages probably present results not differing materially from the average fertility of marriages in the rural districts of the West. I do not know of any rule by which to determine the average number of births to a marriage among our country population, but I do not doubt they will equal in fruitfulness the most prolific portions of Europe. In some villages of Scotland, the proportion of births to a marriage is stated to be seven. (Cy. Pract. Med.) The parties to the above intermarriages were, with one or two exceptions, of rural habitation; were, in many instances, remarkable for mental and physical development; and were surrounded, in a large majority of cases, by circumstances of living calculated to insure the utmost degree of fruitfulness and prolonged life.

These statistics, then, I am satisfied, exhibit results on this account more than usually favorable to the offspring. In support of this opinion, we may contrast this report with Dr. Howe's observation of 17 marriages of blood relations, in his report on idiocy. These 17 marriages gave "birth to 95 children, of whom 44 were

idiots, 12 scrofulous and puny, 1 deaf, 1 dwarf, 58 in all, of low health or imperfect, and only 37 of even tolerable good health." An unusually large number, over one-fifth, of the marriages in my report, were sterile; and I am not aware that this can, in any instance, be imputed to other causes than the influence of consanguinity. Some of the parties to these sterile unions have had excellent corporeal and mental endowments, and have arrived at unusual longevity. In four instances reported to me, females descended from these intermarriages have proved barren, without exhibition of constitutional defect. In two of these instances they had married relatives; in the other two, they married without the circle of family affinity.

I shall not attempt to offer any hypothesis as to the active cause of sterility in these cases. It is a subject in reference to which physiological reasoning has, up to the present time, furnished no satisfactory results. We cannot force our researches into the hidden penetralia of nature, and there discover how her processes of reproduction are so interfered with as to render these intermarriages disastrous to their issue; nor by what means she avoids these unfortunate results, by rendering many such unions fruitless. We must leave the development of this subject to the future physiologist; if, indeed, the sea of human knowledge shall ever extend its limits in this direction.

I come now to speak of the defects of the offspring, in the cases alluded to. I have no doubt that the number of cases of scrofula is larger than the same number of descendants of marriages of consanguinity would ordinarily exhibit. This predominance of scrofula probably results from the fact that, in three of the families, there is reason to suspect the previous existence of strumous taint. These families alone yield sixteen cases of scrofula. This fact, and the large proportion of the deaths ascribed to phthisis, demonstrate the truth of Dr. Barlow's observation, that the tuberculous diathesis "shows itself, in the greatest intensity, in the offspring of marriage between relations in whose family the taint has already existed."

I have not obtained sufficient information to enable me to describe the particular manifestations of scrofulous diathesis in each individual case; some of them are, however, represented as scrofulous ophthalmia.

Rilliet places epilepsy first in order of frequency, of the diseases of the nervous system, to which the products of family intermarriages are most liable. My report comprises four epileptics; the father of one of whom was likewise the result of a marriage of cousins. Eight of the deaths are ascribed to spasmodic affections, and four of this number are specified as epilepsy.

I have no information in regard to the degree or character of mental aberration of the two insane subjects contained in the enumeration. The two cases of muteism were congenital, and will be again referred to, as will also the four cases of idiocy.

I am not informed whether the two cases of blindness were congenital, or produced by causes occurring after birth; they, howev-

er, both occurred in the same family, and were, in all probability, congenital.

The cases of deformity were, in one instance, curvature of the spine ; in the other, malformation of an arm. The six cases of defective vision were myopia, and the results of scrofulous ophthalmia.

It now remains to notice the most remarkable of all the abnormalities of offspring of my report presents. I refer to albinism. Absence of the pigmentary cells of the integument and coats of the eye, is undoubtedly, like most other deviations from the normal type of reproduction, a mark of deterioration. But albinism sometimes occurs where there is no cause or condition, apart from its own manifestation, to lead us to infer degradation ; and, having once occurred in a family, the influence of maternal emotion might have much to do with its repetition. It may exist in connection with a moderate state of corporeal health, and a striking development of intellectual sprightliness, as in some of the subjects of my report. In domestic animals it is so well understood to indicate impaired value, that connoisseurs in horse flesh reject such animals as have absence of coloring pigment in the hair and tegumentary tissues. M. Siecle's* observations upon albino cats led him to conclude that it was, in this animal, uniformly attended by absence of the auditory sense. No defect of hearing has accompanied its presence in the subjects of my report. Almost all the albinos here included are near-sighted. Esquirol also mentions an albino who was certainly myopic, and another whom he supposed to be. I am not aware that any author has spoken of this condition as the result of in-and-in marrying ; but Esquirol states, that wherever we meet with albinos, there we also find the goitrous and idiotic ; and these latter are known to be common products of marriages between kindred. From Dr. Howe's investigations upon this subject, it is safe to infer that idiocy is oftener the result of this cause than was heretofore suspected. In Dr. Howe's report, seventeen out of three hundred and fifty-nine idiots were found to be products of marriages of consanguinity. If the same ratio held good throughout this country, there would have been, in 1850, seven hundred and forty-seven idiots in the United States, the offspring of parents connected by blood-ties.

Congenital deafness is another impairment common to the products of marriages of this character. M. Meniese, physician to the Imperial Institute for the Deaf and Dumb, at Paris, considers this infirmity, when congenital, more often referable to this cause than to any other. My inquiries have not, thus far, led me to a similar conclusion ; but its great frequency among the offspring of such marriages cannot be doubted. A writer in the *National Intelligencer*, some years ago, stated, that " a great proportion of the inmates of the asylums for the deaf and dumb, the blind and idiotic, are found to be the product of the intermarriages of cousins." Then, if we add to the 747 idiots, the mute, epileptic, blind, and insane products of these marriages, computing the number at the very lowest probable figure, and sum together the whole, we shall have, re-

* London Medical Times, vol. 18, p. 128.

sulting from this physiological error in the United States, not less than *two thousand* victims, whose conditions are, for the most part, irremediable ; besides a much greater number suffering from other impairments of constitution entailed upon them by the same cause. Truly,

“Democritus did well to laugh of old :
 Good cause he had, but now much more ;
 This life of ours is more ridiculous
 Than that of his, or long before.”

I am aware that many circumstances may produce defective issue besides the influence of consanguinity, such as the habits of the parents, and their particular condition at the period of approach. Maternal emotion or constitutional derangement during pregnancy, may also frequently determine the character of the offspring. But these accidental influences are not more likely to prevail in marriages of consanguinity, than in those of a different character ; while the number of departures from a healthy standard, in the issue of these marriages, is incomparably greater than in those where no such connection exists.

To prove still more certainly that these various impairments of offspring are due to the influence of too frequent admixture of the same blood, we have only to associate the cases in my report in the various degrees of relationship, and observe if the proportion of accident to the offspring is increased with the degree of relationship. To arrive at this point, I shall divide the productive marriages in my report into three classes : those of the fourth degree, or between second cousins ; those of the third degree, or between first cousins ; and those nearer than the third degree, as between double cousins, or between cousins, themselves the descendants of cousins. The table will stand thus :

Degree.	No. of Marriages.	No. of Children.	Died.	Diseased.	Deteriorated.	Healthy.	Unknown.
4th degree	4	34	8	6	10	10	
3d degree.....	19	130	37	31	17	36	9
2½ degree.....	4	27	13	5	6	3	

It will at once be seen that the percentage of calamitous results to the progeny is largely increased as the relationship becomes closer. I have also accounts of two marriages in the second degree, or between uncles and nieces, but they have not been consummated sufficiently long to determine their results.

I now propose to notice briefly the circumstances calculated to modify the effects of marriages of consanguinity, either in lessening or aggravating their evil results. That these marriages are sometimes practised without apparent ill consequences to the offspring, is obvious to all whose attention is drawn to the observation of these points. Under what circumstances, then, may they be expected to be followed by healthy offspring? Is it when, as Mercatus has advised those entering upon matrimony, the parties are of opposite temperaments? I incline to the opinion that this, with some other circumstances to be mentioned, has great influence in determining the results. Baillou has remarked, that "parents transmit to their children disease as well as wealth, but the former much more certainly than the latter." (Stille's Pathology.) This remark is probably equally true with regard to points of temperament and types of physiological idiosyncrasy as to predisposition to disease. In truth, predisposition to disease may often consist in a hyper-manifestation of certain constitutional peculiarities. Nature seems to have designed that the conditions and tendencies of human organisms should be kept very nearly in a state of equilibrium. This equipoise, necessary to the healthy condition of man, upon whatever inexplicable cause it may depend, may be readily disarranged by giving undue predominance to any particular constitutional phase. The slightest deviations from a normal mean would constitute individual or family peculiarities; while more marked perversions become morbid manifestations, and infirmity results. As in the moral man none are exempt from the taint of sin, so in the physical man each individual of our race has his obliquity towards disease—generally, perhaps, uniformly, towards some particular disease. It is then reasonable to expect that when two individuals marry who possess the same morbid proclivity, their offspring will exhibit that identical divergence, but in a much more marked degree. Thus, undoubtedly, have originated many family peculiarities, perverted tastes, and morbid diatheses. The circle of individuals thus constituted sometimes includes large communities, as is observed in reference to the disease denominated *Plica Polonica*, which attacks the Polish and spares the Russian peasant living under external circumstances equally liable to produce the malady. (Pritchard.) There is no better mode of maintaining this happy mean of temperament than by admixture of types of constitution possessing no family identity. We may possibly, and justly think with Benton, that "it hath been ordered by God's especial providence, that in all ages there should be (as usually there is,) once in 600 years, a transmigration of nations, to amend and purify their blood, as we alter seed upon our land; and that there should be, as it were, an inundation of those northern Goths and Vandals, which overran, as a deluge, most parts of Europe, to alter, for our good, our complexions, which were much defaced with hereditary infirmities, which, by our lust and intemperance, we had contracted."

History presents some instances altogether antagonistic to the doctrine of degradation from this cause. Especially does Sacred Writ offer some cases, of such remarkable emphasis, that it would be extremely difficult to explain the non-sequence of deterioration of offspring, if the rule by which our cotemporaries are measured were equally applicable to them. Abraham, Isaac, and Jacob all married wives connected to them by blood-ties, and yet they were the chosen progenitors of a privileged and highly gifted people, and nothing pertaining to their history suggests the idea of immediate degeneration of progeny. A very learned divine has explained to me this seeming contravention of a natural law, by the supposition that, as the Jews were a people chosen for an especial purpose, they existed under abnormal conditions, and all influences ordinarily inuring to their prejudice were providentially countervailed. This presumption is certainly plausible; and as we see the same people protected in future trials by miraculous interposition, the argument may be entertained without violence to reason. But without presupposing the exercise of supernatural influences, the apparent inoperativeness of this law of degradation by in-and-in marrying, in the above instances, as well as in those of Adam's sons and daughters, may be explained by the incomparably superior endowments of these primeval denizens of our globe. Those were days in which man dwelt as it were in the presence of his Creator; "when," as Schlegel observes, "God familiarly taught man the rudiments of speech, as a parent teaches a child." If those ancient patriarchs were found worthy of these high honors, and if they could ordinarily attain to a longevity many times beyond that to which our most perfect organizations can now arrive, how immeasurably superior to ourselves must we suppose them to have been in vigor and excellence of constitution. They were thus enabled to propagate the race by alliance with their own blood, with no such baneful results as similar causes now call forth. But it is not necessary to believe that such unions were even then exempt from pernicious effects, but in their perfect condition of corporeal organism, and freedom from predispositions to disease, the deterioration of race resulting from this cause was probably exhibited in the lowering of the vital powers and simple abbreviation of life, rather than in demonstrations of the diseases of the present day. We still see these very same circumstances of constitution and condition counteracting, to a limited extent, the evil tendency of this cause. In the early settlement of the West, the inhabitants were, for security, gathered into communities of greater or less magnitude, separated from each other and from the older States by miles of dangerous wilderness. It was natural that each community should be composed in a great degree of blood relations, since, in forming companies for migration, the several branches of one family would often combine. When in their new homes, a scarcity of marriageable material would often render unions between relations expedient, and afterwards, these covenants, arising at first from necessity, became a habit, often convenient in some respects, since it preserved estates within the family circle. But these pioneers were a hardy,

robust people, living much in the open air, and undergoing vigorous exercise ; having for their aliment wild game and the fresh products of a genial soil, and not addicted to any habits calculated to impair the integrity of their well-endowed constitutions. We would naturally expect conditions of life so favorable to the sound development of the bodily organism to overrule all counteracting influences, and it might prove almost the exception, when marriages of consanguinity gave origin to defective issue. Not so, however, among the valleys of the Alps, where, from the barriers formed by impassable mountains, the same seclusion of communities and frequency of family alliances are found to exist. There, with impure air, bad diet, and constitutions infected for generations with hereditary taints, it proves an exception when a healthy child is born from parents of the same blood. There we find goitre, cretinism, scrofula, albinism, and muteism in their most aggravated forms.*

In this country, the Jews, whose religion forbids them to marry except with their own race, are often driven, from the scarcity of marriageable subjects in their communities, to form alliances with their own kindred, and a physician of distinction informs me that they are peculiarly liable to strumous taints and congenital defects. In this connection it may also be of interest to mention Bayard Taylor's observation, that the Jews of America are far inferior in personal appearance to the Jews of Palestine. These same social conditions and connubial exigencies exist also among the free colored inhabitants of the Northern States, and may account for the increased ratio of deaf and dumb, blind, and insane found in this population.— (Comp. U. S. Census, 1850, p. 77.)

Wherever in-and-in marriages are practised under circumstances of life calculated to annul their tendency to deprave the offspring, we see a prominence given to certain points of physiognomy, which constitute striking marks of resemblance, not only evinced in families, but sometimes found to pervade a numerous nation. Thus Hippocrates states that the Scythians all resembled each other, although they were different in appearance from all other people. The Jewish face has, under favorable circumstances, retained its characteristics from the earliest ages to the present day.

History will, I think, sustain the opinion that the most vigorous people have sprung from the ingrafting of nations differing in constitution and temperament from each other. I believe, with an observing writer, that the extraordinary activity and energy of the American people are due to the composite nature of their blood. This rule, however, seems subject to some qualification; for there certainly exist strong reasons to believe that matrimonial alliances between the greatest possible contrasts to be found on our globe, the negro and Caucasian races, for instance, are not favorable to the most vigorous propagation of species. I do not look upon mulattoes as

* It may be proper to remark, in this connection, that there is within a few miles of this city a child, the issue of cousins, whose cranial bones have undergone the rachitic softening so frequently observed among the cretins and idiots of the Alps.

hybrids, but think they exhibit less of vigor and vital force than are found in crosses where there is less contrast. Mr. Alexander, perhaps one of the most experienced cattle-breeders of the world, has observed that the cross between the finest and coarsest breed of cattle is far inferior to that between the best blood and a medium between that and the worst.

The prevention of the serious evils I have under consideration, which of course consist in the prevention of in-and-in marriages, is a point which I do not think is to be attained by enactments of civil laws bearing upon the subject. It would prove equally difficult to convince either legislators or communities that there could be a necessity for going beyond the requirements of the Levitical law. It is, however, the duty of physicians to labor unremittingly in the collection of facts pertaining to this subject, and to submit them to the public. A reasoning man will refrain from a connubial association likely to inflict irreparable injury upon his offspring, after he has learned that such is the fact; and church governments will forbid their clergy to celebrate nuptials which they find tend to the abasement of the species and the subversion of God's beneficence to mankind. As previously stated, the Catholic Church has already discouraged union in any near degree of blood affinity. We have no means of ascertaining, by reference to masses of population, the effects of this prohibition in diminishing the congenital occurrence of such defective offspring as my report presents. It has been attempted in Europe, as Rilliet mentions, with results favorable to Catholic populations. Quetelet's computation of the ratio of deaf and dumb to the whole population is precisely the same in both England and Italy. M. Meniese states that at this day every trace of this interdiction of the Church has disappeared: "*Pendant une longue suite de siècles, le mariage fut absolument interdit à tous les individus parents à un degré quelconque, l'Eglise se réservant le droit d'enfreindre la règle posée par elle-même dans les rare circonstances dont elle voulait apprécier la valeur, mais ces rigueurs de la discipline furent sujettes, comme tout d'autres choses, à un relâchement déplorable, et aujourd'hui toute trace de ces interdictions a disparu.*"

The facts offered in my paper are much too meagre to afford a basis for positive conclusions, but I think it is a step in the right direction, and will at least serve as a guide for other inquiries on this subject. I have, in the last few days, learned, with much pleasure, that Dr. John Bartlett, of Keokuk, Iowa, is now collecting facts for the publication of an essay on this subject. We may congratulate the profession that such an earnest and indefatigable lover of science has taken the subject in hand. The attention of the public press is somewhat, but not sufficiently, awakened to the importance of this subject. The Ohio Legislature, much to the credit of her physicians and lawgivers, passed at their last session a law requiring the assessors throughout the State to collect the facts connected with marriages of consanguinity and certain defects of offspring, and report them. These statistics will furnish a sufficient amount of testimony

to establish beyond cavil the character and degree of influence these marriages exert upon offspring, and the profession will await with much anxiety the publication of this most important addition to our vital statistics.

The following is a copy of the Act referred to:

An Act to ascertain the Number and other Facts respecting Deaf an Dumb, Blind, and Insane, and Idiotic Persons, in the State of Ohio.

SECTION 1. *Be it enacted by the General Assembly of the State of Ohio*, That the assessors in the several townships of each county of the State, while performing their duties, shall ascertain and enter upon a schedule prepared for the purpose, the name, in full, of each deaf and dumb, blind, insane, and idiotic person in the township, together with the age, sex, color, occupation, and place of birth of said persons, and whether educated or not; also, the names, in full, of the parents of said deaf and dumb, blind, insane, and idiotic persons, their place of birth, occupation, number of children, number of deaf and dumb children, and what affinity of blood, if any, existed between the parents previous to marriage; and that said papers be returned in due form to the auditor of the proper county, at the time of returning the assessment of property, and by the said auditor to the Secretary of State, on or before the first day of July, 1856. The Auditor of State shall furnish to the several county auditors the necessary blanks or schedules to carry out the provisions of this act.

For reasons too apparent to be indicated, I am compelled to forego the satisfaction of an individual expression of thanks to many friends, both in and out of the profession, for assistance they have kindly rendered me in the collection of facts upon this subject.—*N. A. Medico-Chirurgical Review.*

ART. II.—*Twenty Aphorisms in respect of Health and Healthy Respiration, but principally in reference to Consumption and Scrofula.*

1. All animals that breathe, all warm-blooded animals in particular, are under a constant incumbency to respire a pure fresh atmosphere.

2. A pure atmosphere is necessary to the conversion of venous into arterial blood. It is necessary in order to get rid of the else continually accumulating detritus or waste of the system, which, by a wonderful provision, is intended at once to be got rid of, and to serve as fuel; in other words, to leave the blood pure, and to maintain the entire organism at a temperature of 100° F.

3. The waste, however, will not be sufficiently got rid of, nor will the animal warmth be properly kept up, unless the respiration

be a healthy respiration. Now, there cannot be healthy respiration without pure air.

4. It is necessary to healthy respiration that the same atmospheric air should not be breathed oftener than once. If breathed oftener than once, and if habitually so breathed, it leads to disease.

5. Nature, if permitted to do so, conveys away the air fouled by respiration, purifies it through the instrumentality of vegetation. Until this be done, air that has been breathed is not fit to breathe again.

6. Air once breathed is poison for man and brute, but is food for plants. Air breathed oftener than once is still more poisonous for man and brute, though still more nutritive for plants.

7. Under the open atmosphere, beneath the free heavens, the air which has been once breathed is speedily conveyed away; but in close, ill-ventilated chambers, it is retained, and consequently is breathed not only oftener than once, but frequently many times oftener than once.

8. Air breathed oftener than once becomes surcharged with carbonic acid gas, the result of combustion, and with other waste excretions of the frame. When this surcharge of impurity amounts to eight parts in the hundred, or 8 per cent., of carbonic acid gas, the respired air will take up no more waste. Here the waste is retained in the system, and, if the evil process be continued, eventually leads to disease. Air only once breathed becomes loaded with four parts in the hundred, or 4 per cent., of carbonic acid gas, whereas the natural atmosphere contains only one volume in a thousand, $\frac{1}{1000}$, or 0.001 of carbonic acid gas, and according to some estimates even less, in which state it is best fitted, and indeed is alone fitted for healthy respiration.

9. Anything, therefore, which prevents the access of a healthy atmosphere to the lungs, or which deteriorates the atmosphere which does find access, is productive of disease, and sooner or later, if the evil influence continue, of death!

10. Day ventilation, however desirable, will not adequately suffice without night ventilation also. A large amount of breathing space is obviously preferable to a small amount of breathing space; but no amount of breathing space can supersede the necessity of an interchange, night and day, and continually, of the air of the rooms in which we live, and breathe, and sleep, and work, with the outer atmosphere. In numberless dwellings, workshops, workhouses, and asylums, the air breathed, irrespective of various stench and impurities, is deteriorated to the extent of two, and in some instances, nearly three per cent. of carbonic acid gas. Respiration in such dwellings, workshops, and asylums, where there is no provision or no adequate provision for replacing the tainted air as fast as it forms, with air pure, fresh, and untainted, is simply death, sooner or later, and from this cause, to the inmates!

11. In houses, dwellings, rooms, as constructed, arranged, and inhabited, the air too commonly is more or less impure, and consequently unfitted for healthy respiration. The evil of foul air, there-

fore, extends to the living inhabitants of these abodes, to man and man's offspring, as well as to the lower animals which for his use or pleasure he domesticates beneath his roof.

12. In man and brute alike, the impurities not being properly eliminated by the lungs, so far as the lungs are called on to perform this office, are retained in the system, retained in the blood. When a certain pitch or degree of impurity is arrived at, the waste not being healthy and naturally got rid of, is laid down throughout and within the system, where it accumulates in points till it become obvious on examination to the naked eye. In this state it has received the technical denomination of tubercle.

13. The retained animal waste or excretion which bears the name of tubercle, has no organization, no trace of life or vitality. It is to the system what the offal and mud heaps are in our public ways and thoroughfares, only that in the one case the waste is properly thrust out of our dwellings, whereas in the other it is most improperly and undesirably retained in the frame.

14. This tubercle waste or excretion, at certain stages, has very much the aspect of rotten cheese or other decayed and dead animal matter, and acts not only as a foreign body, but virtually as a poison in the system or organism where it has no business whatever to be, and in the long run, whether in man or brute, tends invariably to death.

15. When the tubercle waste or excretion lodges in the brain or its membranes, it induces, or tends to induce, hydrocephalus or water-on-the-brain, in some cases convulsions. When it betakes itself to the knee it induces white swelling. When it is seated in the hip it induces hip-joint disease. When it lodges in the spine it causes spinal disease. When it finds its way into the joints or bones of the foot, or hand, or wrist, or ankle, or shoulder, or elbow, it produces disease in these parts, one or more. When tubercle waste fastens on the ear, it causes, or often causes, loss of the ossicula, impairment or loss of hearing. When it settles in the eyes it produces scrofulous ophthalmia. When it affects the larynx, as in laryngeal phthisis or consumption, it impairs the voice, and finally takes away life itself. Tubercle in the numerous small glands of the mesentery, or between the intestines, causes mesenteric disease, the *tabes mesenterica* or mesenteric consumption of the old physicians. When tubercle besets the throat or implicates the skin and subcutaneous tissues, it bears the well known designation of scrofula or king's evil, *the evil*! And when the tubercle waste or excretion is lodged in the lungs, conjointly or not with other organs, it causes consumption, decline, or decay, as it is variously named, the most frequent and destructive of all maladies.

16. The horse, the cow, the dog, the cat, the rabbit, singing birds and others, when subjected to the conditions already stated, are severally liable to tubercle deposits. Lions, tigers, apes, and other wild animals, when closely confined in our menageries, all become tubercle infested, and sooner or later, if not otherwise cut off, die therefrom. There is no special English designation for consumption

in the horse or cow, but by the French it is termed *pommeliere*. When brutes come to labor under deposits of animal excretion or waste, they sicken and languish, as man himself, under like circumstances, sickens and languishes, become unequal to healthy effort, and, unless purposely destroyed, in the end perish.

17. It follows from the foregoing that any and all habits, customs, arrangements whatsoever, whether as regards man or the lower animals, that militate against healthy respiration, are to be condemned, and if it be possible superseded. Such habits, such customs, such arrangements, leading as they do to excretion deposits, are just as chargeable with the death of the victims, as a dose of arsenic or other poison, causing death, is also chargeable with the victim's death.

18. To obviate the fatal waste deposit, it is requisite to breathe pure air incessantly; in short, to let it habitually into our dwellings, and to go habitually out into it. It is requisite to clothe the body warmly, to nourish it well, to wash it daily, and at night to yield incessant admission to the fresh untainted atmosphere, so that in respect of purity there shall be no distinction between the air of the sleeping chamber and the air outside the dwelling. Pure, fresh, untainted night air, the body otherwise being properly clothed, and covered, and nourished, is *not* unwholesome. It is only the night air of the close, unpurified sleeping chamber that is unwholesome.

19. To say that the air of many sleeping-rooms, crowded perhaps with furniture, hangings, carpets, and living inmates, the windows perhaps not made to open, or at least never opened at their upper portion, bedrooms possibly further reeking with uncleanness, infection, and impurity, to say that the air of such rooms is fitted for healthy respiration, would be to insult the most poverty-stricken intelligence.

20. To avoid waste excretion or tubercle deposits, then, in all their forms and all their disastrous results, it will prove needful to breathe day and daily, day and night in fact, winter and summer, and always, a pure, untainted atmosphere. It will be needful to breathe it ourselves, and to procure it for our children and dependents, as well as for the animals which, for our use and pleasure, the Deity has subjected to our control.

ART. III.—*History of the Art of Embalming from its origin to the present time.*

[Translated from the *Moniteur des Hospitaux*, April 19th, 1856]

We must go back to the earliest ages, in order to find the origin of preserving bodies, but for its history we must confine ourselves to those traditions which have been handed down to us in connection

with the discovery of monuments which have escaped the destructive effects of time. Among the nations of Asia and Africa, where embalming appears to have been a general custom, those holding the first position were the Egyptians and the inhabitants of India. The Egyptians particularly, who left such numerous traces of ancient splendor, seemed to have wished to perpetuate themselves even in death, in strewing upon their soil mummies as indestructible as the superb monuments which concealed them.

Historians and antiquarians still conjecture on the motive which led these people to preserve the dead with so much care. Some attribute it to the belief that the soul, after escaping from the body, wandered about during 3000 years to re-enter it, and that therefore the destruction of the former would compel it to pass into the body of an animal. The more rational believe the practice to have arisen in connection with the principles of hygiene, one of the branches of medicine that the Egyptians cultivated with so much success. For in these hot regions, only receiving fertility from the overflowing of the Nile, the decomposition of bodies decomposed in the earth would soon destroy the purity of the air, and spread among the population the seed of the most virulent disease. It is true that the places destined for burial were above the inundations of the river, but in these elevated places the putrefaction of bodies would have been even more fatal; for the winds which prevail in these countries in bringing putrid miasms from a distance would have transported also their disastrous effects. These considerations were too intimately connected with the interests of the public health to escape the enlightened spirit of those who had it under care; thus, Herodotus relates, that during a period of three thousand years Egypt was one of the healthiest countries in the world. Now, subject to the fatal yoke of Mahomedanism, it no longer enjoys this immunity, but it has become the hot-bed of the plague. The various modes of embalming in Egypt might be reduced to the following operations:

1st. Remove from the body all fatty matters and mucous portions, by the prolonged action of soda.

2d. After having well washed the body, dry it in the air or in a stove.

3d. Preserve it by employing bitumen, balsams, resins, and salts.

4th. Surrounding it with numerous strips of cloth, smeared with gum or bitumen.

The aromatics employed by the rich, were myrrh, aloes, cannella, and cassia. For the inferior classes, cedar and bitumen of Judea.

The duration of embalming varied from forty to seventy days, depending much on the drying of the bodies. When the operation was finished, they were enclosed in sarcophagi, and deposited in sepulchral chambers, inaccessible to moisture, the temperature being maintained at about 88 degrees, Fahr.

It is under these favorable conditions that a great number of

mummies have been preserved through a long series of ages, and now supply us with sufficiently accurate knowledge of the art of embalming among the ancient Egyptians.

The Indian mummies, exhibited at the Garden of Plants, appear to have undergone an analogous preparation to those of Egypt. After embalming, the bodies were sewed up in the skins of goats, and deposited in catacombs.

In examining carefully the tissues of mummies, an analysis will detect nitrate or carbonate of potash, or sometimes sulphate and chloride of soda, or the iodides of lime and magnesia. During the infancy of the art, drying and aromatic substances were alone employed; later, saline matters entered among the ingredients. Ethiopians, inhabiting a country richer in gum than the rest of the globe, were accustomed to inclose their bodies in a molten mass of this transparent matter, while the Scythians and Persians covered them with an envelop of wax.

Pliny speaks of the antiseptic properties of honey, and it is related that Alexander the Great, after death, was rubbed with honey before burial.

The Jewish custom was, after washing and perfuming the corpse, to surround the body in the coffin with myrrh, aloes, and other aromatics in large quantities. Saint John tells us that Nicodemus brought one hundred pounds of myrrh and aloes to embalm the body of Christ, the object being to prevent putrefaction, which property these aromatic substances possess in a high degree.

Modern nations following the example of the ancient Egyptians have long practiced evisceration in connection with the use of a number of solid and fluid substances to preserve bodies. Alcohol, essential oils, and compound liniments are most conspicuous; balsamic and aromatic powders with saline substances are also used.

In the middle ages the art of embalming consisted in mixing aromatic substances with salt, with which the bodies were filled. Henry I. of England was thus embalmed in 1135; long incisions were made in various parts of the body, filled with this composition, then sewed up, the body then being enveloped in a beef's skin and inclosed in a coffin. The employment of salt for the preservation of the bodies of kings, is well known in history, the sellers of salt claiming as their right to assist at the royal funerals, and bear the bodies of the kings.

In 1658, Louis C. Bills, a noble of Holland, well skilled in anatomy, announced that he had found a way of preserving bodies from putrefaction without evisceration, so that the form and flexibility of the extremities being retained they could be used for dissection. The announcement of this discovery on the part of the first noble who had given himself up to the pursuit of anatomy made a great sensation. At the height of his renown the States of Barbant bought from him five embalmed subjects for 22,000 florins. Zipæus, professor of anatomy at the University of Louvain, to whom they were given, were appointed to receive the secret; but a few weeks had hardly elapsed when the bodies became putrid. Bills pretend-

ing that such a result was owing to the jealousy of the professors, who placed his preparations in a damp situation, in order to promote decomposition. Bils' treatment of bodies with himself was eminently successful ; the secret was buried with him.

Ruysch, also a Dutch physician and anatomist of celebrity, tried to eclipse his adversary Bils. He succeeded in injecting pieces, which preserved their softness, flexibility and color. His collection so attracted general attention that it was visited by all the curious of Europe. It is said that Peter the Great during a visit to this museum, was so attracted by the embalmed body of a little child which appeared to invite him with a smile, that he kissed it. Ruysch sold his collection, at the entreaties of Peter the Great, for 30,000 florins. Although 79 years old, he immediately recommenced forming a collection, which he succeeded in doing in two years. In dying, in 1731, he also carried off with him the secret of his admirable injections.

Darconville was the first who discovered, in 1762, the preservative properties of corrosive sublimate, but we are indebted to the illustrious Chausser for the practical use of this drug in preserving animal matter. Beclard, chief of the anatomical works of the faculty of medicine of Paris, applied the sublimate in embalming bodies. Charged with preserving the body of a young man who died with hectic fever, (the parents refusing to have the body opened,) after making numerous punctures and incisions in every portion of the body, he placed it in a solution of corrosive sublimate, in which it was kept for two months. When taken out, it was dried for a few days, and then inclosed in a glass case where it remained for a year without smell, or the slightest appearance of alteration. It was then given to the family. The skin was discolored greyish, and the features were somewhat changed from the thinning of the lips, cheeks, eyelids and ears.

Bugliaretti, an Italian physician, united arsenic with sublimate. He injected with this solution the primitive carotid artery, the right jugular vein, the external iliac on both sides, and by using a trocar he forced the fluid into the thorax and abdomen. The results obtained, appeared to be very similar to the preceding.

Dr. Tranchina, of Naples, acquired a great reputation in Italy, for preserving bodies. His method consisted in an injection of a solution composed of 4 lbs. of arsenic in 10 lbs of water. This mode of preservation, very dangerous for dissectors, did not serve the purpose of embalming, for the body became livid and atrophied in drying till only a skeleton remained, covered with skin from which the cuticle had peeled.

In 1822, M. Jannal, manufacturer of glue, discovered that a solution of salt and alum would prevent fermentation. With this mixture, in connection with a small quantity of arsenic of soda, he injected the body of a child, which was left on the tables of the Morgue for three months, and from which he attained a great reputation.

It is nearly fifty years since chloride of zinc was first used in

England for preserving animal matters. Sucquet took out a patent for preserving pieces, by first injecting them with sulphate of soda, and then plunging them in a solution of chloride of zinc.

Mr. Granger had been previously acquainted with the antiseptic properties of the sulphate of zinc, and a young savant, M. Gratiolet, conservator of comparative anatomy at the Garden of Plants, had tried it for preserving anatomical pieces. After numerous experiments he abandoned this salt, which did not preserve sufficiently, as the tissues became discolored. The skin resembled parchment, and the muscles diminished more than a third of their volume. Although injections of this salt tried at the anatomical rooms in Paris were unsuccessful, it is still used by anatomists in preserving subjects.

Dr. Roux, of Nîmes, teaches the following system : It is impossible to find an antiseptic, which will preserve all subjects. The following circumstances should be taken into consideration : 1st. The constitution of the subject. 2d. The cause of death. 3d. The temperature. Anatomists must have daily observed in the dissecting room that putrefaction is differently produced ; in some subjects it shows itself with extreme rapidity, in others some days elapse, and a few might be kept for even weeks, without much decomposition. From this fact, he concludes that the choice of an antiseptic agent upon the character of the substance which it is intended to preserve,—that is to say, upon each subject—should be chemically treated according to the constitution, cause of death, and influence of temperature. After long experience, this anatomist lays down the following rules :

A young animal is best preserved by using a sulphate ; a sulphate for an animal at puberty ; and a chloride for an adult ; and lastly, to prevent mould from appearing on the surface, pour over them either some essential oil, æther, or chloroform. There is no universal antiseptic agent. By following these rules, astonishing results will be obtained.—*Charleston Med. Jour. and Review.*

ART. IV.—*Clinical Lecture by the late Dr. DRAKE.*

COLUMBIA, Texas, April 24, 1857.

DR. DOWLER: *Dear Sir* :—Inclosed you will find a copy of an Introductory Clinical Lecture delivered in the Louisville Marine Hospital, by the late Prof. Daniel Drake to the class of 1845-46. It was taken down by myself at the time, and as every thing from him is valuable, I send it to you that it may be perpetuated.

Yours respectfully,
GREENSVILLE DOWELL, M.D.

MODE OF EXAMINING A PATIENT.

You should in your examinations, inquire of your patient as follows;—First. Of what country a native? His age and occupation. Secondly. How long has he been sick? Whether he has ever been sick before? If any of his relations have had the same disease before? especially, if the disease be a hereditary one. What medicine he has taken? How did it act?

In the next place, you should commence your examinations with the external appearance of the body or configuration. 1st. See if there be any prominences or depressions, and mark their situations and nature. Note whether the patient be corpulent or hypertrophied or debilitated, or of a feeble constitution.

2d. Observe the color of the skin. If it be of a yellow-brown color, you may infer that something is wrong about the biliary apparatus, and that the liver is not in a healthy condition. If the skin be of a pale livid color, you may expect some disease or derangement of the circulatory apparatus, either of the heart or blood vessels; or that the blood is imperfectly ærated.

3d. You should examine the alimentary canal, beginning with the mouth. If the tongue be coated with a dark scurf, or scaly, with tumefaction of the gums, with dark deposits of matter on the teeth, we may infer the patient to be typhoidly disposed. Again, if the tongue be red and dry, with a good deal of thirst, there may be inflammation of the stomach, or duodenum, or liver. If the tongue be covered with a thick, slimy coat, you may be sure the system is very much affected, and that the disease is of a debilitating and malignant character, and you may apprehend the worst consequences.

Proceeding with your examinations, you depress the tongue with some wooden instrument, and observe the organs exposed in that situation, whether there be tumefaction of the tonsils and uvula. Feel or make pressure on the skin, over that part, and you will discover if there be inflammation or not.

Next comes the stomach. If there be soreness of the epigastric region on the pressure, with nausea, heat and thirst, and pain following eating, there will be inflammation of the mucous membrane of the stomach, and soon to the rectum, varying your examinations according to the part of the canal.

Then you should turn your attention to the respiratory system. Make your patient sit erect. Take off his clothes. Now make him bring a long breath; notice whether it gives him pain or not; whether it produces cough. Pay attention to his voice when he speaks. Notice whether it be bronchial or natural. Now commence and make percussion, first, from the clavicle to below the sternum, about half way between the sternum and the spine, and then on the opposite side in the same manner, noting the different sounds; secondly, at the back, beginning at about opposite the same point as before, proceeding down the back between the spine of the scapulæ and the vertebræ.

Take pains, in your percussion, to strike with the ball of your fingers, raising them immediately. Then apply your ear, with a

towel or something of the kind between it and the body, closely applied, or with the stethoscope. Note the consequences. If the sound be loud, upon percussion, and the respiratory sound be bronchial, and the vesicular be absent, there will be hepatization of the lungs, and so on, making your diagnosis according to the physical signs.

While you are using the ear or the stethoscope, make the patient count or speak in monosyllables; make him cough; observe if it gives him pain. If he expectorates, observe whether it be pus or mucus.

Next in order is the nervous system. Beginning with the nerves of sensation or the five nerves of the external senses; first, the eye. If there be insensibility to light, we may infer that there is congestion of the brain from apoplexy, or effusion of serum or lymph, from inflammation. Again, if there be great irritability of the nerves from light, there may be inflammation of the brain that has not proceeded to a termination by either effusion of serum or lymph. The same examination with respect to the sense of hearing. These all noted, you should proceed to the spinal marrow. Make pressure along its whole extent. If there be pain upon pressure, you may infer that there is inflammation somewhere in its course.

We next examine the vascular system. Examine the pulse. If it be full and strong, with hot skin, we say there is fever. If it be incompressible and wiry, with heat and pain, we say there is inflammation of some organ, and should we bleed, we will find the body to have a superabundance of red globules, with a buffy coat and cupped. We notice whether there be congestion of any organ, such as the heart, lungs, liver, spleen, or the general capillary system; whether there is a state of collapse or depression. Lastly, we observe the secretory apparatus. First, the saliva; second, the gastric juice; third, bile; fourth, urine; fifth and lastly, the fœces. If there be a profusion of saliva, there may be some hard irritating substance in the mouth of the patient, or he may have taken too much of some preparation of mercury, which has produced ptyalism. There may be too great a secretion of the gastric juice, and it may be of an acidulous nature, producing indigestion. Bile may be secreted in too great a quantity, and produce dark and irritating discharges, or it may be suspended, and the fœces will be white and dry, of a costive nature, that is, producing costiveness, with imperfect digestion, flatulency, and colic. There may be too great a secretion of the urine, producing diabetes, or it may be stopped by inflammation of the kidney, which will give an odor to the perspiratory matter, and to the breath by the effete which it is in the habit of carrying away, getting or remaining in the blood.

The fœces are a valuable means of diagnosis. If they be white or clay-colored, or greenish, there will be some derangement of the biliary organs. If they be mingled with undigested matter, there is derangement of the stomach and tributary organs. If they be hard and dry, we may infer that there is inflammation in some part of the tube, etc.—*N. O. Med. and Surg. Journal.*

ART. V.—*Cyanosis*: by PROF. CARSON. (From *Trans. Coll. of Physicians of Philadelphia*, Dec., 1856.)

Dr. Carson read the following report of *a case of Cyanosis*. The subject of the following case having lived, in opposition to so many physical obstacles, during a surprisingly prolonged period of time, I have regarded all the details connected with its history as interesting and worthy of record, and have therefore taken considerable pains to note and preserve them.

S. R. was born in Philadelphia, January 26, 1836, and at the time of his birth, was a perfect specimen of cyanosis. He passed through the stages of infancy with no unusual derangement of health, not having developed, however, as his brothers and sister, but remaining puny and contracted in his growth.

In April, 1842, he was attacked by hooping cough, which was of great severity in consequence of the difficulty of respiration on the occurrence of the paroxysm, and attended, from time to time, with profuse hæmorrhage from the lungs. From this he recovered slowly, and afterwards, until the winter of 1848, was apparently in good health. I had not occasion to inquire minutely into his condition prior to the attack mentioned, but, at that time, my attention was closely directed towards him, and subsequently, his case was studied attentively. When he was in the best state of physical existence, the following were the features presented: Countenance rather dull, except when roused by emotion, with a leaden hue of the skin; expression of the eye clear, but the adnata permeated by deep crimson vessels; lips, gums and tongue, purple; person small, but slowly increasing from year to year; extremities delicate, with a remarkable enlargement and incurvation (from curvature of the nails) of the ends of the fingers and toes, which were as deeply tintured as the lips and tongue. The chest was narrow and contracted, prominent in front, and evinced a series of phenomena which were constant until his health began to fail, viz: perfect resonance on both sides, before and behind; respiration louder than usual, with no marked signs of pulmonary embarrassment. The impulse of the heart was strong, extending half an inch further on the right side than natural, and seen conspicuously when the chest was exposed; the frequency of beat amounted to eighty per minute. The action of the heart was accompanied with both sounds, the first sound most feeble, and also a peculiar blowing sound, which was perceptible not only when the ear was applied directly over the heart, but at some distance on the sides of the chest. He participated in the active exercises of boys, at which times I noticed that his respiration was much hurried, but he did not appear to suffer, had a good appetite, good spirits, and an active inquiring mind, which led him to apply himself to his studies, and to excel in such as were presented in succession with advancing age.

In the year 1843, with the view of determining the effect of position upon the cyanosed condition, Dr. Pepper and myself instituted the following experiments:

1. When laid upon his back, with his shoulders moderately elevated, the chest presented some prominence over the cardiac region. Impulse of the heart not strong, beats eighty per minute; dullness on percussion of the cardiac region; pulse regular, but feeble; in the carotids, the same as the wrist. *Bruit de soufflet* distinct. Respiration twenty per minute. The right hand was elevated for two minutes, when it lost its color; while the left, being pendant, increased in blueness. This trial was now reversed, with the same result.

2. He was placed upon his left side, and in thirteen minutes the lividity in the lips and the hands, which were placed at rest, horizontally, was diminished, but the left side of the face, where it rested on the pillow, was more injected than the other. In fifteen minutes, no greater effect had taken place. He was now made to lie on his right side, and in fifteen minutes, as much, but no greater diminution of the blueness had occurred as when upon the left side.

3. With the view to excite the circulation, we directed him to run up stairs and return. He then presented excessive lividity of the lips, cheeks and hands, great difficulty of breathing, the heart acting tumultuously, and the pulse rapid and irregular. He was placed on his left side, and, in fifteen minutes, the condition was the same as when this had been practised in the previous experiment. He was again directed to run up stairs, and, on returning with the same symptoms, was laid on his right side. In fifteen minutes the same diminution of color took place, and calmness occurred as before, when he had been placed upon the left side, but not to a greater extent, or more rapidly.

4. After inducing augmented blueness by the same exercise, he was laid upon his back, and here, again, it was ascertained that the excessive lividity disappeared with as much rapidity as when placed either on the right or left side.

During the winter of 1848-9, he had an attack of hæmorrhage from the lungs, connected with pneumonia, from which he recovered, and in the spring, resumed his school duties, but his general health was not so good as previously, and during the ensuing autumn, when the cold weather set in, he was obliged to relinquish his studies, becoming a confirmed invalid, and evidently declining.

April 25, 1850, I visited him, and noted the following symptoms: Much emaciation of the whole frame, with extreme delicacy of the upper and lower extremities; countenance pinched, of a leaden hue; eye dull; lips and tongue of a pale purple; pulse, one hundred and sixteen, quick and thready; respiration, thirty, sighing; impulse of the heart decided, but not forcible; sounds of the heart merged into a rough, rasping sound, heard over the whole front of the chest; respiratory murmur louder than natural in the right lung, both anteriorly and posteriorly. In the anterior of the *left* lung, the sounds were masked by that of the heart, but, posteriorly, the middle lobe presented some dullness on percussion, and a distinct, crepitant murmur. Some cough existed, especially at night, with thick, tenacious sputa. He could not remain long in the recumbent posture. Skin

cold and moist; tongue coated; appetite poor; bowels regular; complained of erratic pains, and, of late, has suffered from prolapsus ani. Treatment sustaining, and to relieve his sufferings.

August 1. From the time before specified, has been gradually failing; the emaciation has become extreme, and the difficulty of breathing has become so oppressive, as to preclude repose in the recumbent position; respiration hurried, thirty-five per minute; pulse, quick and tense; skin cool; mucous membranes becoming dry and foul; extremities swelling. The anterior of the chest presented the rough, blowing sound, with bare perception of the two sounds of the heart. There was dulness on both sides of the chest, before and behind, and no respiratory murmur discoverable on either side, but, at the upper parts, tubular sounds, and some crepitation, or submucous râle.

16th. Patient, after having suffered under almost agonizing pain through the chest, extending to the extremities, with difficulty of respiration, amounting to asphyxia, the lividity of the face and hands becoming extreme, and cold, clammy perspiration covering his whole body, died at 2 P. M.

Post-mortem Examination.—Sixty-eight hours after death, an autopsy was made. The body was exceedingly thin, and the blue tinge of the skin very apparent. The examination was made by my friend, Dr. F. W. Sargent, from which I took the following notes:

Chest.—Upon laying bare the sternum and removing it, strong adhesions were overcome. On endeavoring to remove the lungs, they were found bound to the sides of the chest by strong membranous connections, the result of pleuritis on both sides, but firmer on the left. *Lungs* filled with tubercles as large as peas, as well as in smaller masses, congested, and in some portions hepatized, the posterior portions of both in a state approximating softening, sinking in water. Pericardium adherent firmly to both right and left lung, containing f3iss of serum. The heart was located with its right edge under the centre of the sternum, the base opposite the second rib, and the apex between the fifth and sixth ribs, length three inches, transverse diameter three inches two lines, much distended with blood, and filled with soft coagula. Auricles distended; *foramen ovale open*, large enough to admit the forefinger (one-half inch in diameter.) *The right and left ventricles communicated with each other*, there existing, in fact, but one cavity, the septum being wanting, with the exception of half an inch at the lower part, formed, apparently, by a transverse development of the columnæ carneæ. The diameter of the opening between the ventricles was one and seven-eighths inches. The thickness of the walls of the ventricles was very neraly equal—five lines. The substance of the entire organ was flabby. The circumference of the aorta, at its origin, was two and one-sixteenth inches; that of the pulmonary artery was one and five-eighths inches. One of the muscoli papillares of the tricuspid valve had its origin at the posterior wall of the right

ventricle lower than usual; valve of the foramen ovale natural; the mitral valves, normal, as well as the semilunar of the aorta and pulmonary artery.

Liver large, deeply colored; kidneys, firm, apparently natural. The abdominal organs healthy.

There are several points worthy of note in the history of this case. The subject of it lived exactly fourteen and a half years, and, from the time of his recovery from whooping cough in the spring of 1842, until he was attacked by pneumonia in the winter of 1848, appeared to be in good health. The cyanosed condition, although modifying his growth, and producing the peculiar phenomena connected with it, which have been mentioned, did not affect his spirits, or produce hebetude, but, on the contrary, his mind was active and capable of effort. When in the best state of health, as reported in the notes, his respiration presented perfect resonance on both sides, and was louder than usual. Without apparent pulmonary embarrassment, except when in exercise, yet the extreme engorgement to which the lungs could be subjected, was shown by the profuse hæmorrhage which occurred during the attack of whooping cough. From the date of the attack of pneumonia, a difficulty in his respiration exhibited itself, becoming more and more serious in proportion to the advancing disease of the pulmonary structure and its accompanying hypostasis, until, under this combination of local circumstances, he succumbed after an unusually prolonged struggle. *Post-mortem* examination revealed a heart without the septum between the ventricles and patulous foramen ovale, with a marked disparity between the openings of the aorta and pulmonary artery, and disease of the lungs of the most serious nature.

The first aspect of the case from the resemblance to a single heart, might induce the belief that the cyanosis depended upon an equal commingling of venous and arterial blood in the general circulation; this is the causation of the disease which has been adopted by several authorities. Untenable as this supposition has been shown to be by the occurrence of just such malformation in cases where no cyanosis existed, this case does not present this sole aberration; an inequality existed, of a very anomalous character, between the aorta and the pulmonary artery. By referring to the admirable paper of M. Bizot,* it will be found that the circumference of the opening of the aorta, at the age of fifteen years, in the male, is twenty-two and three-fourths lines, while the circumference of the opening of the pulmonary artery is twenty-three and three-fourths lines (the French measurements have been reduced to the English.) If we compare the measurements of the same openings, in the heart under consideration, with these, it will be seen that, for the aorta, there is given two and one-sixteenth inches, or twenty-four and three-fourth lines, which is two lines more than natural, and for the pulmonary artery there is given one and five-eighths inches, or nineteen and one-half lines, which is less than natural by four and one-fourth

* *Recherches sur le Cœur et le Systeme Arteriel chez l'Homme*, par J. Bizot (de Geneve,) *Memoires de la Societe Medicale d'Observation*, tom. i., Par's.

lines. In the normal state of the heart, the opening of the pulmonary artery exceeds that of the aorta by a line, while, in this case, it is less than the aorta orifice, the difference between them amounting to five and one-fourth lines, a little less than half an inch. It cannot be doubted, then, that in this slight enlargement on the one side, and decided contraction on the other, there existed a cause of embarrassment to the circulation, which places the case in the category of those produced by pulmonary difficulty. That the heart had difficulty in emptying itself, is apparent from the constant bellows murmur, which increased as disease of the structure of the lungs set in, and from the strong impulse perceptible on inspection, which accompanied the action of the organ. The walls of both ventricles exhibit a departure from the normal thickness, that of the left exceeding the natural measurement by a line, and that of the right augmented three lines; or contrary to the usual structural arrangement, which gives four lines for the thickness of the wall of the left ventricle, and one and one-half for the right, they were nearly equal, thus more closely conforming to the idea of a single ventricular cavity. Whether this augmented thickness was congenital or acquired, cannot be determined, but, from the length and breadth of the organ corresponding to the standard measurement, we are induced to believe it was the former.

That difficulty in the pulmonary circulation did exist, although, in the early portion of the history of the case, not sufficiently marked to arrest attention, is clear from the ready occurrence of hæmorrhage first under the influence of whooping-cough, and then of pneumonia. The condition of the lungs as found, was in a great measure, the result of fixed hypostatic congestion, on which had engrafted itself the tubercular element.

We have been induced to report the case as confirmatory of the views entertained by our lamented fellow-member, Dr. Moreton Stille, and so well sustained in his inaugural thesis on Cyanosis, published in the *American Journal of Medical Sciences*.

Dr. West referred to a case of malformation of the heart and great vessels, reported by him, with some remarks upon cyanosis, to the Pathological Society of Philadelphia, and published among its Transactions, in the *Medical Examiner* for November, 1842.

The case of Dr. Carson confirmed the views which he had then taken in regard to the production of cyanosis.

The subject was a boy, eight years of age, who had exhibited no marked discoloration of the skin, until after an attack of pertussis when he was fifteen months old, and even subsequently to that period, his parents had at times noticed the entire disappearance of the blueness when he was sitting erect, and perfectly quiet.

He was suddenly seized with a violent convulsion, which was repeated on the third day afterwards, when he almost immediately expired. The heart in its substance, its coronary vessels, and in all its cavities, was found, after death, remarkably turgid with dark blood. The actual capacity of the right cavities was nearly double that of the left ones. The foramen ovale was closed. The two

ventricles and the aorta communicated by a circular opening about half an inch in diameter. The aorta had an origin from each ventricle. The most interesting peculiarity presented by the specimen, was found in the condition of the pulmonary artery. This vessel was almost entirely occluded at its origin, which presented a small papillary eminence, through which a passage scarcely capable of admitting a large pin, was continued to the superior corner of the right ventricle. The supply of blood to the lungs was furnished by the ductus arteriosus, which was still open within the pulmonary artery. At the point where this duct opened, there existed a kind of valvular arrangement. The duct passed directly across from the aorta to the pulmonary artery, and at right angles to the course of the latter vessel, occasioning, necessarily, the blood which reached it, to branch off into two directly opposite currents. From this arrangement, it can readily be seen that the flow of blood from the right ventricle into the lungs must have been greatly retarded, the whole of it, nearly, having to pass at several right angles, after leaving the heart; as a consequence of this retarded movement of the blood, congestion of the whole venous system must necessarily have been produced, that of the skin exhibiting itself in the form of cyanosis.

The venæ cavæ, too, instead of entering the heart separately, were first united into a common trunk, which joined the auricle exactly at a right angle, a further impediment being thus offered to the return of the blood to the heart, of course assisting in the production of congestion throughout the whole venous system.

Dr. Condie said: I regard Dr. Carson's case as a very interesting and important one. The number of cyanotic persons who reach adult life, is by no means inconsiderable; many such cases are on record. The causes of cyanosis in children who perish, are often quite independent of cardiac lesions, and still more so in those in which the discoloration is only temporary. In many cases, the blueness disappears immediately after the occurrence of a free discharge from the bowels, and hence I am accustomed, when the skin is purplish, to give a purgative dose of castor oil. In very many cases of alleged or supposed overlying, I have no doubt that the child's death is attributable to imperfect expansion of the lungs. In the course of one year, I met with three such cases. In two of them, a coroner's inquest was held, and, on examination, the lungs were found to be in a state of atelectasis, quite in the foetal condition, like the liver in texture, and sinking when thrown into water.

Dr. Carson remarked, that a cause of cyanosis, which had not been alluded to by the authorities on the subject, is congenital dropsy, when the mother is suffering from this affection at the period of her labor. He alluded to a case in which the mother was the subject of general dropsy at the time of parturition, and the child, when born, affected with universal watery infiltration, distending the limbs, the body, and the face, was in a deeply cyanosed condition. He regarded the cyanosis as depending upon a similar infiltration into the cellular tissue of the lungs, impeding respiration. As soon

as this cause of venous congestion was removed by the subsequent administration of a purge, the cyanosis disappeared.

Dr. Condie said: I am enabled to confirm the remarks made in reference to the causes of cyanosis, by another case in point. I had a little patient affected with œdema of the lungs. As the attack advanced, its color became gradually more and more dusky, until it acquired a perfectly cyanotic hue. On examination of the body after death, no lesion having any connection with the symptoms was discovered, except general and complete œdema of both lungs, by which the expansion of the air cells and the pulmonary circulation were rendered impossible.

ART. VI.—*Spiritualism*. By WALTER CHANNING, M. D. [Communicated for the Boston Medical and Surgical Journal.]

This subject is of deep, wide and popular interest. It occupies, almost exclusively, many minds—minds of various power and different culture. Whenever it enters the mind, it fills it. And why should it not? How could it be otherwise? What more solemn, and what can be more attractive than a science, the object of which is the unseen world, the habitation of the dead—of *our* dead—and which says it brings from heaven again to earth the dearest and best remembered, or which claims to hold intercourse in the spiritual world, through mediums, with the happy dwellers there. Said one to me, and the straitest of his sect, “I have far, far more pleasure in the society of those members of my family who are dead, or rather, who have *passed away*, than with those of it who remain with me on earth.” It was a passing thought, but it came, that there might be others in this “naughty world,” who would agree in this declaration with my friend the Spiritualist. The Spiritualist believes in facts of sense, and in the agency by which they are made known. He says he has the evidence of sense—of sight and hearing, in the first place, which is the basis of assent—and, in addition, and paramount to this, the “evidence of things not seen” or heard, which is the basis of faith. Chairs move; tables are turned legs upward, while their tops rest gently on the heads of those standing under them. The voluntary action of others is claimed to be controlled, and that things are grasped and held by forces which cannot be overcome. Many years ago, at the latest advent of mesmerism, a man came to America from France, named Poyen. He was quite successful in practicing mesmeric phenomena. A friend of mine—a near relative—attended some sittings, and we talked about what we saw. I said, “I do not know, I do not understand how the will of M. Poyen can raise the arm of another person, keep it suspended, or bend it so that he cannot straighten it again.” Said my interlocutor, raising his arm, “I do not understand, I do not know how I raise this mass of solid matter—this arm of mine. Why should I

question the power of M. Poyen to do the same with another mass of matter, out of himself—for instance, my arm? Why may not his will—since will is but one thing, the action of the same power belonging to all living beings—do with my will what he wills, and act upon my arm as readily as upon his own—nay, control my voluntary actions just as he does his own?” The questionings came from a man of strong and thoroughly cultivated intellect, and who was habitually careful about what he said—in whom moral and intellectual responsibilities was a deep and abiding principle—duty—and who labored to be true to his convictions.

Spiritualism was said to be a matter of deep present interest. It is indeed a phase of mesmerism, but not the less claiming the profound consideration in which it is held by its disciples; and at the same time not the less asking, and demanding and receiving the thought of the best thinkers. It should not be ridiculed or condemned. Ridicule is no longer the test of truth; and contempt is the most unwise and unworthy of intellectual operations. The man who treats another with contempt is faithless to the great principle which constitutes humanity—

“The inspiration of the Almighty, which hath given him understanding.”

It was a philosopher, and a wise one too, who said:

“There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy.”

Spiritualism, we are told, has other agencies besides “table-tipping” and chair-moving. It has power, it is said, to learn the nature of, and to remove disease. It is on account of this alleged agency that the writer has been led to notice it. He has never witnessed its more popular operations. The table has not moved when he has been present; and other spiritual manifestations have failed to be made. He has no evidence to offer, therefore, of the power here claimed, but of the exercise of which, how can he doubt, as it has been stated to him by too many, and too competent witnesses, to allow him to question their statements. Mistakes, however, are now and then made, of which the following is an instance: A letter was received and opened by the writer, which was intended for another person of similar address. Its contents were said to have been communicated from a deceased husband in heaven to a medium, to be sent by the latter to his widow. It ended with “dear *Elizabeth*.” The widow’s name was *Ruth*.

My professional acquaintance with Spiritualism has not been large and I shall report at this time only two cases of disease for which, relief has been sought from dwellers in heaven.

CASE I.—Miss*****, a maiden lady, and somewhat beyond the “middle ages,” had for a long time suffered from indigestion. At length the disease assumed a very grave character. Not only could the stomach not bear any food, liquid or solid, simple or compound,

but the matters vomited were black—as black as a “crow.” The abdomen was tender, especially in the region of the stomach. I was asked to see the patient in consultation. The address was reached in due time, but the consulting physician had not arrived. After waiting the fifteen minutes allowed to difference of time or watches, it was suggested that it might not be necessary for me to wait longer. Miss **** was now visited. She was in her bed, but received me very cordially, and presented very slight traces, if any, of disease. She did not seem in the least emaciated. Her complexion was clear and of a due mixture of red and white. There was quite a remarkable animation about her address. She spake and smiled so naturally, that one would hardly suppose she was in any degree ill. Upon inquiry of symptoms, she said that her life was despaired of—that so ill was she the last night, that it was supposed or predicted she would die before morning—that her disease was of a most serious character, being nothing more nor less than cancer of the stomach—and finally, that nothing would remain in the stomach, but that instead of keeping down, every thing came up. Careful examination was now made of the region of the stomach, and of the whole abdomen, but nothing was discovered denoting any disease whatever. The examination was made especially with a view to ascertain if cancer of the stomach existed, but the discovery did not reward labor. An opinion, founded on the exploration, was given, that there was no cancer—there was no evidence of impending death. Miss **** was advised to get up, dress, and go about, and to eat in moderate quantities such articles of food as were most desired. After much agreeable conversation—as with an intelligent lady conversation so frequently is—the consulted withdrew. He has not seen Miss **** since, but recently, on inquiry of a relative of hers, he learnt that she was perfectly well. The writer expressed his pleasure at the information, but was told that the credit belonged elsewhere; that, being a Spiritualist, she had consulted a medium, who applied to my late friend, Dr. ****, and received advice from him, which being followed, recovery had taken place. Pleasure was expressed that my deceased friend was in the kingdom of heaven; also a desire to be informed what professional advice he had given. It was short and comprehensive, namely, *to drink no wine, and to sit in the sun.*

CASE II. — Mrs. ***** has children; has long been confined to house, and much of the time to bed, with that numerous catalogue of complaints which have their cause in uterine functional troubles and displacements, which disturb all other functions, nullify the will, and so make useless the whole system of voluntary action; producing one of the saddest, because to the sufferer one of the most hopeless of conditions. To such a case a Spiritual medium, of alleged large endowments for such an office, was called. The writer having some professional relations to the case, was invited, on request, to be present, to attend the consultation.

The attending physician, together with the medium and the writer,

met at the appointed hour. After some conversation, the medium said he was ready to begin. Being asked if any physicians were present from the spiritual world, he said there were three, viz: the late Dr. S*****, the late Dr. *****, and a late botanical doctor, who, on earth, lived in — st. It was agreed that Dr. ***** should be consulted. The medium having bandaged his eyes, sat down near by the side of the bed on which the patient was lying, and bending over the lower part of the trunk, exclaimed, very gently, “wonderful! what curious, what various things do I see!” He was asked if he saw a tube from the spleen going to the womb. He said, “yes;” and being asked how it looked, he replied, “considerably large, and inflamed.” How or where does it terminate? was the next question. “In the Fallopian tube,” was the answer. The appearance and situation of the womb were next asked about. It was described as of a triangular shape, and its end turned somewhat backward, being out of its natural direction—anteverted.

The writer having frequently had conversations with the late Dr. ****, before his death, upon a condition of the womb, concerning which there was an entire difference of opinion between them, was very desirous to learn of the doctor what were his present views of the subject; in other words, if his later opportunities for superior knowledge on this and all other subjects had led him to change his opinion concerning a subject of their frequent amicable disputes. The affection referred to was hour-glass contraction of the womb, a complication of labor painful in itself, and severely so in its surgical requirements, and not without danger. This accident, it is well known, is universally believed by medical men to be owing to a contraction of the womb after delivery, at some point between its fundus and mouth. The consequence is, that a portion of the womb remaining uncontracted *above*, and a portion being in the same state *below* the contraction, a figure resembling the *upper* and *lower* chambers of an hour-glass, is produced. Dr. **** believed there was great error in this explanation of the case, and that the upper chamber, so to speak, of the hour-glass, comprised the *whole* of the *uncontracted* womb; while the supposed stricture was nothing else nor more than the *closing of the os uteri*, the *lower chamber* being the *dilated vagina*. After some apparent deliberation on the question of Dr. ****’s present opinion, the medium said, “Dr. **** thinks *hour-glass contraction* a *very good thing*, and should certainly recommend it.”

In the course of the consultation, the medium declared, again and again, that he had no knowledge of anatomy or physiology, and absolutely knew nothing of the terms or language of these sciences. These declarations were made in connection with his frequent use of the technicalities of these sciences. This statement is made, because it has been suggested that the form and situation of the womb in Mrs. ****’s case — *anteversion* — as described by the medium, having been again and again described to the patient, and the means used for reduction and support also stated to her, the medium might have obtained his knowledge spiritually from the patient, and not from the late Dr. ****. The writer, it should be added, has never

given this or any other explanation of this part of the statement of the consultation of the medium with the spirit of Dr. ****.

Having now finished the account of the anatomy, physiology and pathology of this consultation, let us pass to its therapeutics. Dr. **** was inquired of as to the remedies in this case. These were numerous; so many were they, that the writer, having begun a catalogue of them, abandoned the task as an impossible one. The list embraced all sorts of articles, vegetable ones entirely — and for a moment one might suppose that the — st. botanic doctor, being tired of hearing our friend ****, had “pushed him from his stool,” and had usurped his place and office. Not only numberless were the plants and herbs named, but they were as diverse, as it regards their reputed medicinal effects, as they could possibly be. They were contradictions multiplied. The writer well knew that his late friend, Dr. ****, had always so far agreed with Paracelus as to adopt many of his anti-Galenical therapeutic recommendations. He certainly never ranged with the botanicals—or rather Indians—that wing of the medical faculty being wholly *sylvan*. Then the quantity of these numerous vegetable antagonisms! This was not the less striking than the things themselves. Next, the quantity of water in which they were to be *infused* or boiled. Next, the quantity to be daily swallowed, which was to be in pints and quarts. This last was the most thought of by the preceding medical attendants in the case, as so much difficulty had been encountered by the patient in taking into the stomach even the smallest quantity of food and drinks, which had been directed by them. Not the slightest objection was now interposed by patient or friends; and, as far as known, what was taken, whether all that was prescribed or less, produced not the least annoyance. At least the writer has not learnt that it did; for since the spiritual examination, he has not had any connection with the case. Many months have, however, now passed, and quite recently it was hinted that perfect health was not yet established.

It having been the purpose of the writer to avoid comment concerning what he heard in the consultations above reported, he does not mean to depart from that purpose now. He would only ask the attention of the physicians who may read the report, to the latest opinions of Dr. **** about hour-glass contraction, especially their relations to a subject which so deeply interests the popular mind, namely, spiritualism.

EXTRAORDINARY MONOMANIA.—M. Lariviere relates a case which he believes unique, which has recently come before the court of Briancon. A man, aged 27, usually believed to be of weak intellect, and a great liar and dissimulator, was convicted of having torn open the abdomen of many live sheep with his teeth, and then eviscerating the animals. He killed as many as thirteen in this way in four or five months and five in the same night. No motive could be assigned for the acts, and M. Lariviere pronounced it a case of pure monomania. The court sentenced him to six months imprisonment. — *Med. Times & Gaz.*, June 13, '57, from *L'Union Medicale*.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

An Exposition of the Signs and Symptoms of Pregnancy, with some other papers on subjects connected with Midwifery. By W. F. MONTGOMERY, A. M., M. D., M. R. J. A., ex-scholar of Trinity College, Dublin, Professor of Midwifery in the King and Queen's College of Physicians in Ireland, Member of the Imperial Society of Vienna, etc., etc. From the second London edition. Philadelphia: Blanchard & Lea, 1857, pp. 568. (For sale by Riley & Co.)

The present treatise, although another edition of a work already published, may be regarded as being almost entirely a new book, the former, in every sentence, having been carefully revised and much matters entirely new added, derived from the experience of the author and from other sources.

The work before us is made up of thirteen chapters on the subjects usually discussed in works of the kind.

The chapter on the state of the system during pregnancy has been increased to nearly double its former contents, numerous additions having been made which discuss more fully the increased susceptibility of the nervous system and of the mind in pregnant women, as it regards impressions made by external objects, and the influences thus exercised on the child.

Spurious or simulated pregnancy has received quite an elaborate consideration.

The state of the *blood and urine* in pregnancy, subjects that have occupied so much of the attention of physiologists of late, has been by the author very fully discussed.

Among the subjects that are rather new in obstetrical science are the "*dusky hue*" of the vagina, as an evidence of pregnancy; and an essay on the spontaneous amputation of the foetal limbs *in utero*.

All of the subjects treated of in the volume before us, viewed not merely in a professional light but in a social or legal point of view, and the extreme difficulty often encountered in coming to correct conclusions, upon which depend very often virtue, honor, domestic

peace, legitimacy, etc., assume great importance to the medical man. Presenting as it does a *resume* of researches, opinions, conclusions on subjects of such importance, the work as now completed will prove to be a very valuable contribution.

The *American publishers* have got this work up in very fine style. They have aimed at giving an exact transcript of the original. The colored plates representing the *Corpus Luteum* are about the best specimens of American art in this line that we have noticed.

The following from the work on *feigned pregnancy*, we transfer to our pages as possessing more than the usual degree of interest just now :

A proceeding may take place at common law, "where a widow is suspected to feign herself with child in order to produce a supposititious heir to the estate, and defraud the lawful heir. In such a case the heir presumptive may have a writ *de ventre inspiciendo*, to examine if she be with child or not, and if she be, to keep her under proper restraint, until she is delivered. But if the widow be, upon due examination, found not pregnant, the presumptive heir shall be admitted to the inheritance, though liable to lose it again on the birth of a child within forty weeks from the death of the husband. But his right could not, on any pretext, be any longer suspended.

* A celebrated case of this kind, which attracted great attention, occurred in the family of Sir Francis Willoughby, who died seized of a large inheritance. He left five daughters (one of whom was married to Percival Willoughby,) but not any son. His widow, at the time of his death, stated that she was with child by him. This declaration was evidently one of great moment to the daughters, since, if a son should be born, all the five sisters would thereby lose the inheritance descended to them. Percival Willoughby prayed for a writ *de ventre inspiciendo*, to have the widow examined, and the sheriff of London was accordingly directed to have it done. He returned that she was twenty weeks gone with child, and that within twenty weeks, *fuit paritura*. "Whereupon, another writ issued out of the common pleas, commanding the sheriff safely to keep her, in such an house, and that the door should be well guarded ; and that, every day, he should cause her to be viewed by some of the women named in the writ, (wherein ten were named) ; and when she should be delivered, that some of them should be with her to view her birth, whether it be male or female, to the intent, that there should not be any falsity. And upon this writ, the sheriff returned, that accordingly he had caused her to be so kept, and that, on such a day, she was delivered of a daughter."*

* Cooke's Elizabeth, p. 566 See also in the matter of Martha Brown *ex parte* Wallop in Brown's Chancery Cases, vol. iv. p. 90 ; and *ex parte* Aiscough, Peere Williams' Reports, vol. ii. p. 591.

This is a mode of proceeding seldom resorted to, but it is still recognized by our law, and was had recourse to a few years since, in the English court of chancery, in the case of Marston and Fox, of which the following were the facts : Mr. Fox, of Uttoxeter, aged about sixty, died in May, 1835, leaving a widow, to whom he had not been married more than six weeks. The widow announced herself to be with child, and entered a *caveat* to the probate of the presumptive legatee, Mr. Marston : whereupon, the latter immediately applied for a writ *de ventre inspiciendo* to ascertain the lady's pregnancy. The lady, however, became alarmed by what she heard about the nature of the examination,* and petitioned the court not to grant the writ, which it was argued was not called for, as it presumed fraud on the part of the female ; but this was overruled by the vice-chancellor, who held that suspicion of fraud was not necessary, and that the mere assertion of pregnancy was sufficient to support the application. Mr. Marston did not insist on a compliance with the forms of the ancient writ, but merely that the lady should be examined by professional persons selected by him ; but as Mrs. Fox would not consent to this, the conditions prescribed by the old law were held to be the only alternative. The widow put in a number of affidavits to avert the law process, and stated that, in consequence of the recent death of her husband, and many other circumstances which had subsequently taken place, her mind was in such a state, as to render her unable to undergo the examination required by the writ ; the medical attendant of the family deposed that he had examined her, and believed her to be pregnant, and further added his opinion, that the kind of examination prescribed by law would be likely to do injury to her and the child ; but that, if two months were allowed to elapse the doubt and danger would be removed. Other witnesses deposed that Mrs. Fox was a delicate woman, and a person of modesty. Under these circumstances the vice-chancellor, who said that from reading all the affidavits, he was satisfied that there was strong ground for believing the lady to be with child, thought it best to let the matter stand over for a month, by which time, further proceedings might be unnecessary. At the end of that time, however, the parties not being likely to agree, and two affidavits from medical men being put in, to the effect that Mrs. Fox was now in the fifth month of her pregnancy, which, however, did not satisfy the counsel on the opposite side, the court made a final arrangement. The vice-chancellor said that there was no

* Which certainly must be as formidable and revolting to the feelings of the female, as it is repugnant to our notions of propriety and decency ; the ancient writ runs thus : “ Tibi præcipimus quod assumptis tecum *duodecim discretis et legalibus militibus* et duodecim discretis et legalibus mulieribus de comitatu tuo, in propria persona tua accedas ad præfatam R. et eam, *coram præfatis militibus*, videri, et diligenter examinari et tractari facias, per ubera et ventrem, in omnibus modis quibus melius certiorari poteris, utrum impregnata sit, necne,” &c
—*Register Brevium*, 227.

doubt the applicant had a *right* to the writ ; but that the lady, on the other hand, did not deserve to be treated with the severity of the ancient process.

He, therefore, adopted a middle course, and left it to the master to appoint two matrons, who, with a medical man on each side, should visit Mrs. Fox once a fortnight, giving her two days' notice previous to each visit.* The lady was afterwards delivered of a son and heir.

A case, of nearly a similar kind, occurred in this city some years ago ; the lady had been about four months married to an elderly, and, as it was asserted, impotent man, when he died ; having before his marriage, made an arrangement of his affairs in favor of his son by a former wife ; on his death, the son proposed to take possession of the property at once, to which the widow objected, saying that she was pregnant, and had a claim in right of her child. It was agreed between the parties, that the existence of pregnancy should be determined by reference to medical men chosen on each side, and the writer was retained by the heir ; but before anything further was done, the lady contrived to effect a sale of the greater part of the property, and, appropriating the proceeds to her own use, disappeared, leaving the parties concerned to settle the matter as they best might. The event proved that she was not pregnant. †

There is another case where the court has interfered, on proof of the existence of pregnancy being brought before it, and that is, where a female in this situation is imprisoned. Thus in the case of Elizabeth Slymbridge, ‡ upon suggestion that she had been imprisoned for divers weeks, and was with child, and would be in danger of death, if she should not be enlarged, Sir Edward Coke, the chief justice, admitted her to bail to prevent the peril of death to her and her infant, and in giving his opinion he quotes a similar case which happened in the 40th of Edward III. The editor remarks, that these cases are cited as extraordinary instances. The last case is mentioned in Coke upon Littleton, 289, *a*. The record states, "*Quia eadem Elena pregnans fuit, et in periculo mortis, ipsa dimittitur per manucaptionem ad habendum corpus,*" &c.

When proceeding to an investigation of this kind, we must recollect that the signs or proofs, of pregnancy are to be collected from various, and widely different sources ; and, moreover, that, of some of them, we can have no evidence, except from the report made to us, while of others, we can judge by the changes existing before us, and cognizable by our senses. The following are the chief of these

* The above details are extracted from a very well written article in the Lond. Med. Gazette for Aug 15, 1835, p. 697, and the announcement of the lady's delivery appeared in the same journal for Nov. 7, p 191. The legal relations of this part of our subject are very well set forth in Mr. Smith's notes to Dr. E. Kennedy's *Evidences of Pregnancy*, p. 227.

† See Schmitt's *Cases of Doubtful Pregnancy*, first division, cases 32 and 33.

‡ Croke's *James*, 358.

signs, and of the sources from which evidence is to be collected :—

1. Certain affections of the constitution induced by pregnancy, which are the result of the new action which has commenced in the uterus ; such as suppression of the menses, generally increased irritability of the nervous system, evinced in capriciousness of temper, or perhaps in the production of erratic pains, as in the face and teeth, greater activity in the circulating system, and especially in the exhalants, giving rise to œdema and other forms of dropsical effusions ; alterations in the countenance from absorption of the fat, &c.

2. In consequence of the irritation induced in the uterus, there is a train of sympathies excited in other organs, affecting either their physical constitution or their peculiar functions ; such, for instance, are the changes produced in the breasts, by which their size is increased, with tingling pains, the areola formed, and milk secreted ; the stomach is rendered irritable ; vomiting ensues ; the appetite becomes variable and capricious, and sometimes the salivary apparatus participates so decidedly in the irritation, that complete salivation takes place ; a peculiar product named *kyestein* is occasionally to be found in the urine.

3. The altered condition of the uterus itself, which, increasing in size, ceases to be a pelvic organ, and rises into the abdomen, which, in consequence, becomes enlarged and prominent, and a corresponding change is effected in the state of the umbilicus ; while, at the same time, certain alterations takes places in the os and cervix uteri, affecting their form, texture, &c., which we can recognize by touch ; and a peculiar color may be observable on the mucous membrane of the vagina.

4 The contents of the uterus so enlarged ; the presence of a foetus therein, and its motions, which we endeavor to ascertain by manual examination, both *externally* through the abdominal parietes, and *internally* per vaginam ; and also, by the adoption of auscultation to discover the pulsations of the foetal heart and the placentary sound, or uterine souffle.

5. Certain organized substances may, under suspicious circumstances, be discharged from the uterus, by a proper examination, of which, we may be enabled to determine whether they are the product of conception, and, of course, positive proofs of pregnancy.

6. After death, we may be called on to make an investigation for a like purpose, and, by examination of the uterus and its appendages, to determine the question of actual pregnancy, or of previous impregnation. I shall notice the principal of these signs in detail.

Now, it is quite obvious, that of the signs thus enumerated, some are of a kind much more decisive than others, and in this respect, I think we may very conveniently divide them into three classes ; considering the first and second groups as *presumptive*, the third as *probable*, and the fourth, fifth, and sixth, as *unequivocal*. Many of the sympathies included in the first class are not necessarily the result of pregnancy only, as their specific cause, but may arise equally from

the uterine irritation, which is common to that and other conditions of the female system, and hence, one great source of deception and error; while, on the other hand, conception is, occasionally, productive of so little disturbance, or alteration in the exercise of the several functions usually affected, that one of our principal guides in forming an opinion is unavailable. And again, conception sometimes occurs when the system has been already in a state of disease, which, by the derangement previously produced, will prevent the possibility of judging from the absence, or presence of those indications to which we refer in ordinary cases, as happened in the instance of E. G., to be related hereafter,* who was laboring under disease of the heart, and had catamenia suppressed, two whole years, when she conceived.

But whether, under such anomalous conditions as these, or in ordinary cases, where all is proceeding in the regular and natural order, there are some general considerations applicable to all, which should always engage our attention when we seek to assign their proper value to symptoms, whether viewed separately, or in conjunction:—

1st. The interval at which they have appeared, after the supposed time of conception.

2d. The order, or succession, in which they have presented themselves.

3d. Their value, as certain and unequivocal, or as uncertain and equivocal

4th. Their correspondence with each other.

5th. The length of time they may have been in existence.

A. With reference to the period after conception at which it may be expected that a woman will begin to experience any of those constitutional, or other changes which would suggest the idea of pregnancy, it may be stated that, in general, this will not happen until one or two menstrual periods have passed by, without the appearance of that discharge; but there is much diversity in this matter. I shall have occasion, by and by, to notice the case of a lady who began to be sick the day after she was married,† and her delivery took place exactly nine months afterwards. I have since seen another, who was married on Monday and began to complain on Saturday; she was delivered eight months after, of a child, evidently wanting a month of maturity. (See also a case p. 90) In some instances, I have known the first intimation supplied by some uneasy, or painful sensation; a patient of mine has frequently told me, that before she had any other evidence of being pregnant, she became aware of it, from a peculiar burning sensation, which she distinctly referred to the situation of one or other ovary.

* See Chap. III. p. 80.

† *Aliæ vero, statim primis a conceptione diebus adeo a nova ista mutatione, ut misere ægrotent, patiuntur.* Rœderer, *Elem. Art. Obst.*, p. 45, § 142. “Des l’instant même de la conception.” Desormeaux, *Dict. de Med.*, tom. x. p. 410.

B. The order in which symptoms present themselves should always weigh with us : as certain deviations in this respect will often, and at once, show us the doubtful character of the case before us : thus, for instance, we may have suppressed menstruation. morning sickness, mammary development, and an enlarged abdomen, but the order of their occurrence may have been exactly inverted, and no pregnancy exist.

C. With regard to certain, or unequivocal symptoms, of which there are but three, viz :

Active movements of the child, unequivocally felt by another ;
Its presence in utero ascertained by ballottement ;
The pulsations of the foetal heart.

If any one of these be ascertained beyond doubt, it settles the question ; but then, we must remember, that they are decisive only on the positive, or affirmative side ; if certainly recognized, pregnancy is indisputably proved, but their absence, or rather our not being able to discover them, would be no proof that pregnancy did not exist.

Uncertain, or equivocal symptoms may be used as guides, when they are found associated in considerable number ; when manifestly resulting from sexual intercourse ; when not resulting from morbid influence ; when they appear as an unexpected, new, and unusual event ; when they are not fleeting, or transitory, but of a certain duration ; and even accidental idiosyncrasies are useful, as corroborative indications, if they have been experienced before, under similar circumstances.

D. The correspondence between symptoms, or the want of it, is often very valuable as a guide ; as when, for instance, a woman who has had menstruation suppressed for seven or eight months, with morning sickness and other equivocal indications of pregnancy, is found without the mammary changes and with a flat belly.

E. The length of time during which the existing symptoms have been in existence ; as when a woman has had great abdominal enlargement and supposed foetal motions for ten, twelve, or fifteen months.

On the Constitutional Treatment of Female Diseases; by EDWARD RIGBY, M. D., Fellow of the Royal College of Physicians ; Senior Physician to the General Lying-in Hospital ; Examiner in Midwifery at the University of London. Philadelphia : BLANCHARD & LEA, 1857. \$2 50.

Among the shower of books, upon the Uterus and Female Diseases, which the Profession of Medicine are and have been for the last few years receiving, is the above little work, just issued by Blanchard & Lea. The author does not profess to have compiled a full and complete treatise on the diseases peculiar to females, but has devoted

the largest share of his work to the consideration of those forms of disease seen in the every day life of every physician; to disordered menstruation, in its several forms of Amenorrhœa, Dysmenorrhœa and Menorrhagia; to inflammation of the Os and Cervix Uteri, with and without ulceration; Displacements of the Uterus, Oophoritis. The different varieties of these several diseases he founds upon the causes producing them, whether local or constitutional, showing that in a large majority of cases the cause is constitutional, and that the derangement of the chylopoietic viscera so uniformly attendant upon this class of complaints, precedes and causes, rather than is caused by, the local affection. So thoroughly convinced is he of his correctness in this respect, relative to the different forms of Deranged Menstruation and Leucorrhœa, that, "except in deference to long established custom and usage," he does not consider them as distinct diseases, but classes them as symptoms, merely, of an otherwise disordered and vitiated constitution. The chapter on Acute and Chronic Oophoritis, or Ovaritis, showing the relation existing as to cause and effect between these diseases and Suppressed Menstruation, Membranous Dysmenorrhœa and other forms of deranged Catamenia, inflammation of the os and cervix uteri, abortion, displacements of the uterus, the rheumatic-gouty diathesis and functional derangement of the chylopoietic viscera, and the necessary treatment, is, in many respects, new to most of the profession, and one of the most valuable. The work is eminently a *practical* one, and of great value, particularly to that class of physicians who received their education before the pathology and treatment of Female Diseases were so thoroughly understood as they are at the present time. As its name implies, it shows the great importance of and the necessary constitutional treatment for these complaints, and if any find fault with or disparage it, it will be those Uterine Specialists, so numerous at the present day, who discover the key to all woman's ailments through the Speculum, and open the door to perfect health by means of the scarifier and cautery alone.

E. L. H.

On Diseases of Women, including those of Pregnancy and Childbed; by FLEETWOOD CHURCHILL, M. D., T. C. D., M. R. I. A., Vice President and Fellow of King and Queen's College of Physicians in Ireland; one of the Presidents of the Obstetrical Society; Professor of Midwifery, with Diseases of Women and Children, in the King and Queen's College of Physicians in Ireland; Associate Member of the College of Physicians of Philadelphia, U. S., etc., etc. A new American Edition, revised by the Author, with Notes and Additions by Dr. FRANCIS CONDIE, M. D. Philadelphia: Blanchard & Lea, 1857. (For sale by RILEY & Co.)

In presenting the present edition, the author states that he has carefully revised the work, pruning what appeared to him to be exuberant; enlarging what appeared defective. Besides he has incorporated, in the present edition, a very full digest of the experience of others in the same line of inquiry. Several new chapters have been inserted, and a number of wood-cuts, partly from original drawings and partly from the drawings of others.

It is not necessary, in our notice of this work, to do anything more than to state that it seems to be a complete and faithful exponent of the present state of medical opinion and experience in reference to the pathology and Therapeutics of the entire range of diseases to which the female sex is liable, including those of pregnancy and childbed.

The American Editor has added a few paragraphs, included in brackets, to the text of the author, and some illustrations in addition to those contained in the last edition.

PART FOURTH.

EDITORIAL AND MISCELLANY.

With the present Number we commence the Xth volume of the JOURNAL; and it would seem that we should say something in regard to the *past*, something also of the *future*. For nearly three years we have made the attempt, as the conductor of a periodical, to furnish medical men, located mostly in the Mississippi Valley, from indeed, Pennsylvania to California, and from Minnesota to Louisiana, with specimens of the current literature of the times; and such views,

opinions and conclusions of our own as seemed to us to be proper. In regard to what has been accomplished, we have nothing to say. Our humble efforts have been contributed to the common stock of the profession, and if it ever turns out that they should be productive of dividends, these belong to humanity. If, on the other hand, they shall prove in the end fruitless, or be obscured by the more meritorious labors of others in the same line, we have still left to us a source of enjoyment—the conviction that we have endeavored all the time to keep in view the maxim, “*Act well your part.*”

Composed as is our profession of every variety of the “*genus homo*,” no one can occupy the position of an Editor very long without seeing much to admire, and also much that he imagines might be improved.

Fidelity to the numerous, onerous and dangerous demands of the profession, is everywhere witnessed. No one shrinks from duty or from danger. When the pestilence comes, or the siroc sweeps over the land, the physician is found at his post, and abides the result. Ease, comfort and health are often lost sight of to restore these blessings to others. Nor are such sacrifices stimulated by the expectation of temporal reward. No class of men are so poorly rewarded for their services—none whose avocation is less satisfactory in the way of providing even a competency for family wants. The physician’s sacrifices, indeed, grow out of proper views of the benevolent nature of the calling. The risks and deprivations are taken when he enters the profession, and from them he can, by no circumstances, be absolved.

But while there is so much that is praiseworthy, there are also many things that need improvement. Filled up mostly by young men, ambitious and aspiring to usefulness, but without ever having enjoyed, in a majority of instances, the opportunity for obtaining thorough elementary information and the discipline growing out of such a course, our profession presents a picture that scarcely gives it any claims whatever to the character of being one of the “*Learned.*” In cities, towns and country, everywhere, indeed, we need an appreciation of this fact, and as a consequence, more application, more time given to the literary department, more to science. As an offset to such suggestions, the remark is often made, “I am poor, and I must spend my time, for a while, in a way that will bring in the largest returns of ‘bread and butter.’” Such logic is not very philosophical, and by it hundreds are continually being deceived—deceived until they pass beyond the period in life when application

is practicable. It is no misfortune to be born poor. It's the best legacy that nine-tenths of our young men could possibly inherit. It is most apt to secure health, purity of character, and energy, the elements necessary to manhood. There is no member of the profession, it matters not what his circumstances are, but what has time in abundance to make himself all of which he is capable; and until this truth is recognized, our profession must remain sorely vulnerable. There is no profession the exercise of whose duties requires more capacity than the medical. To be a successful practitioner of medicine, not only a large range of studies come in play, but accurate powers of reason are indispensable. In every department, facts, phenomena and events present themselves, often at variance with each other, at other times in a state of confusion, or perhaps entirely novel, all of which have to be resolved, placed in their proper relations; and upon the correctness with which this is done, too often depends the life of a human being. Indeed, the physician can scarcely make a move without the necessity of keeping a sharp lookout for sophistry—sophistry in the way of sensual illusions, sophistry in testimony, sophistry in his own attempts to reason on the data before him. How, now, are such requirements met? How many of us devote the necessary time to culture of the senses, to understanding the principles of testimony, to discipline of the faculty of reasoning? It is rather an uncommon circumstance to find two medical men agree as to the import of the phenomena connected with a case of disease. Why is this? It seems to us to be mostly due to difference of cultivation. Of near the same capacity, and educated to the same extent, the same views will be taken.

There is in truth, no ignoring the fact, that the dignity and usefulness of our calling demands an improvement in the way of accuracy. We have too much loose talking, loose reasoning, loose prescribing, and even loose swearing. It could not have escaped the attention of those having some experience in the past history of the profession, that in some things we have absolutely deteriorated. Such is true with reference to the popularity of the profession—the confidence extended to it by the people. From London and Paris to the most insignificant towns of the Western Continent, persons occupying the highest positions, no less than the herd, are found in open hostility to the claims of what is regarded as science in the use of drugs. It might be well enough to ask ourselves how this has come to pass. Is it our fault, or is it the fault of the people? Have physicians made themselves acquainted with all the physical agents

capable of affecting injuriously the physiological state, all the means of preventing disease ; and have they diligently in every case ransacked the materia medica for the particular article which modern research suggests as best calculated to meet the indication ? Or have they, from carelessness, indisposition to study, false veneration, or bigotry, stood still, ignoring everything that is *new* as being humbuggery ; and using no other weapons in their conflict with disease, than "Calomel and Jalap, "Salts and Tartar," etc ? Have we not scores among us, candidates for business, who are completely fossilized so far as progress is concerned ? It might, we repeat, be well enough to think over these questions. They may do something in explaining the matter before us.

Before laying down our pen, there is another matter that seems to be entitled to a share of attention. We allude to the cause of the increased frequency of suits for mal-practice. How does this happen ? Are surgical diseases treated with less skill now than formerly ? Or do patients understand now, better than a quarter of a century since, when the surgeon does his duty ? Such questions are far from explaining the trouble. Attention to the developments connected with a large majority of the suits for mal-practice, implicate members of the medical profession, if not as originators as having the relation of *particeps criminis* in getting up the unjust and disgraceful proceedings. This is true of every region in which the troubles occur.

When there happens to be an imperfect result in the treatment, for example, of a case of Fracture, some unprincipled rival of the attending surgeon makes it convenient to see the case, and to the patient or friends insinuates in a very indirect manner that the case has not been well treated, or perhaps not treated according to the most recent works on surgery. The ball is thus set in motion, and the knave who started it then goes to work to attempt to cover up his tracks. We assert again that such is the origin of nine-tenths of all the suits against physicians.

These suits have not been confined to young men of little or no experience, but the oldest and most renowned surgeons throughout the land have either suffered from their annoyance, or purchased exemption from it. This is true of most of those who have figured as the lights of surgical science in our country. It should, therefore, be a matter of prime importance in every case to ferret out the originators of the trouble, and extend to them the benefits of an exposure. We have a little evidence of this kind on hand that will see the light one of these days.

In conclusion we may state that it gives us no pleasure to look at, or hold up to public view, the dark side of the picture—professional. Indeed, it is disagreeable in any aspect in which it can be contemplated. But occupying our position, it becomes necessary to give a portrait of things as they exist.

It might seem to those who have attentively read what we have written the last year, that we labor under the monomania of the Perfectionists. Not at all. To exercise the duties of the Medical Profession in an enlightened manner, requires work and moral integrity; and what we have earnestly tried to do, is to have these facts duly appreciated.

INDIGENOUS RACES OF THE EARTH. — The leading article of the present number of the Journal is mostly a review of Pulskey's chapter in the above work on Iconography. The young science of Ethnology or Anthropology may now be regarded as inaugurated. Much has already been written on it, and not without good results. A few years since it was decried, in consequence of the question in regard to the origin of the races, having taken precedence of every thing else. This, however, is but a part of the inquiry, and without any doubt has been prematurely mooted. So far as evidence has yet accumulated, it leaves the question of *unity* or *diversity* still *sub judice*. This is the opinion pretty generally of all who have devoted much time to the inquiry. Gliddon, in his chapter on what he is pleased to term "*The Monogenists and Polygenists*," which we have read with some degree of care, brings forth with very creditable polemical power all the evidence bearing on the plurality theory, and closes with the following summary ;

"1st. That every argument brought forward on the Unity side, is either refuted or refutable ; but that,

"2d. Whilst the reasonings in favor of the Diversity view preponderate greatly over those against it, I do not, nevertheless, hold the latter to be as yet absolutely proven."

TO SUBSCRIBERS.—It is no pleasant matter to have to talk to subscribers in regard to their *delinquencies*. Year after year, many

subscribers put off payment for the Journal — thus committing two offences — destroying their own reputation for punctuality, without which no man can be any thing more than a cripple in business, and withholding from the proprietor the means of paying current expenses. It is only necessary for the right minded to take this matter into consideration for a moment, to see the impropriety, the injustice of such a course. We do hope, therefore, that those who know themselves in *arrears*, will respond promptly to the bills which we send out with the present number. Our terms are "*advance payment*," and in remitting back dues, remit also for the current volume.

PHILADELPHIA HOSPITAL—DR. JAMES MCCLINTOCK.—It is known to most of our readers that not long since Dr. McClintock, formerly a Professor, and founder of one of the schools of Philadelphia, so far forgot himself and his former relations as to engage in getting up a lot of nostrums. The nostrums, however, did not take, and the Company that undertook their manufacture, after paying Dr. McC. some \$5,000 for his agency, failed—lost some \$75,000 in the enterprise—and gave it up.

Dr. McClintock, it appears, became convinced that he had sinned, and gave evidence of repentance by publishing in the Journals an account of the nostrums, his methods of compounding, etc. For his conduct, however, he has been severely handled by many of the Journals, when at last pity seemed to take the place of wrath and for the time but little was heard of the affair.

Attention has lately been again attracted to it. Dr. McClintock, it seems, has been appointed, within a very short time, as Chief Resident Physician of the Philadelphia Hospital, (Blockley,) located on the west bank of the Schuylkill—an institution which accommodates many thousand inmates annually. It now contains some 2500 persons, most of them in need of professional aid; and the deaths are said to be from 500 to 800 a year. From such data any one can see the clinical treasures which this institution contains, and the advantages it might afford to the colleges of Philadelphia.

The appointment of Dr. McC. as Superintendent was followed by the resignation of all the Assistant Resident Physicians of the Institution. The College of Physicians of Philadelphia also passed reso-

lutions condemning the act. The affair, indeed, has turned out to be a source of great mortification East and West. The *Board of Guardians of the Poor*, who had the appointment in their hands, have shown how little of medical matters can be safely trusted to popular judgment. One of the largest and most available hospitals of the country now stands transferred into the hands of one who has, to say the least, made himself odious to honorable men both in and out of the profession.

LOUISVILLE UNIVERSITY—MEDICAL DEPARTMENT.—It will be seen by the card in this No. of the Journal, that this Institution, notwithstanding the fire of last year, by which its building was destroyed, is again in the field with a new edifice, museum, etc., ready for the duties of the approaching session. Such energy and promptness is in harmony with the ancient renown of the Institution.

From the Medical News and Library.

MR. CRAWFORD, THE SCULPTOR'S CASE.—We have received the following communication in regard to this case from Prof. Wm. Gibson, dated—

LONDON, July 10, 1857.

Dear Doctor:—I send you this statement to use as you please.

Truly yours,

WM. GIBSON.

In looking over, some time since, the New York *Evening Post*, I was astonished to find a letter of May 2, from my son, Professor Charles Bell Gibson, of Richmond, Virginia, in reply to one of Mrs. Louisa W. Crawford, wife of Thomas Crawford, Esq., the celebrated American sculptor of Rome, dated Paris, April 7, 1857, charging me with having seriously injured her husband by an *explorative operation*. I deem it necessary, in my own justification, to disabuse the American people on the subject; and in order to make my statement perfectly clear and intelligible to *non-professional* readers—

professional ones requiring no elucidation whatever—I shall give a short history of Mr. Crawford's case. Whilst in Rome, last winter, I received from Mr. Crawford the following note:—

VILLA NEGRONI, }
Tuesday, Dec. 2, 1856. }

My Dear Sir:—Will you excuse the liberty I take in asking if you can make it convenient, any hour after eleven o'clock to-day, to call at my house, and give Dr. Smyth, who is attending me, the benefit of your advice regarding my eye. I fear this subject is becoming a serious one, and Dr. Smyth having heard of your *reputation*, is desirous of consulting with you. An answer will much oblige,

Yours, very truly,

THOMAS CRAWFORD.

I replied to Mr. Crawford's note immediately, and consented to meet Dr. Smyth at 12 o'clock the same day. Previous to examination of the case I said to Dr. Smyth:

"I resigned my professorship in the University of Pennsylvania, and my practice in Philadelphia, some months since, am entirely out of the profession, and do not wish to engage in any case whatever. I am willing, however, to make an exception in favor of Mr. Crawford inasmuch as I look upon him as a great artist, as an honor to my country, have taken a deep and abiding interest in his glorious achievements, and shall consider his loss a national calamity, should anything seriously befall him. Say to him, however, that I cannot regularly attend him, that my services must be gratuitous, that I will see him with you as often as I can, as a friend and countryman, and will do everything in my power to serve him as long as I remain in Rome, which may be only for a short time—for the sake of himself and interesting family, now separated from him by the broad Atlantic, and unaware of his danger; which I take, from your account of it, to be imminent."

After minute examination and inquiry into the nature of the case, I remarked to Dr. Smyth: "It is evident that the eye, perfectly sound in itself, but pushed beyond the walls of the orbit more than half an inch, is acted upon by *pressure* from behind from a fluid or solid—that if by the former, an *exploring needle* might, by discharging it, cause the eye to resume its natural position, and be followed by a cure—that if, on the contrary, *solid*, and particularly, if of *malignant* character, no essential benefit can result from any treatment whatever, and that the case must, *necessarily*, in a few months, terminate *fatally*." Having obtained Mr. Crawford's consent to the use

of the *exploring needle*, and being requested by Dr. Smyth to perform the operation, I engaged in it, the next day, with every precaution and with the utmost delicacy, and in a few minutes was able to ascertain, with the utmost accuracy, that there was *no fluid*, but a *solid* tumor, which not only filled up the posterior part of the orbit, but might possibly have its origin in the *brain*. In this state of the case I wrote to Dr. John W. Francis, of New York, an old acquaintance, an eminent physician, and the uncle of Mrs. Crawford. I wrote *cautiously*, not having *fully* made up my mind as to the *real* nature of the tumour, and not wishing to alarm Mrs. Crawford and her friends unnecessarily. To Mr. Hooker, the eminent banker of Rome, and the devoted friend of Mr. Crawford, I spoke with less reserve, and expressed my apprehension of the case being likely to terminate disastrously. In a short time I received a reply to my letter from Dr. Francis, and a postscript from Mrs. Crawford, thanking me in the kindest terms for the warm interest I had taken in Mr. Crawford's case, for my "*philanthropy*," &c. I wrote also to Mr. William Lawrence, one of the oldest and most eminent of the London surgeons, a gentleman of vast experience, and particularly skilled in affections of the eye and its appendages, stating Mr. Crawford's case and asking the benefit of his advice, and received from him in reply a most interesting letter, evincing great sagacity, but confessing his inability, from the peculiarity of the case and the complicated symptoms, to give a decided opinion. I need hardly remark that the small incision made by me through the skin and muscle of the upper eyelid, to admit of the easy introduction of the needle between the eyeball and upper orbital plate, and the puncture with needle parallel with the base of the orbit, healed in a very few days, and no material inconvenience or exacerbation of symptoms followed the operation, as has been stated; in fact, no injury was done or could be done; as there were no important parts in the vicinity of the operation which, with ordinary anatomical knowledge and care, could suffer without being followed immediately by hemorrhage, the formation of matter, the protrusion of a fungus, or other visible ill consequences. The truth is, the tumour, at the time of the operation, was rapidly upon the increase, and the symptoms which soon after displayed themselves would have been developed, there is reason to believe, whether an operation had been performed or not; indeed, it was not to be expected that a tumor, such as I soon after discovered it to be, should long remain quiescent. Mr. Crawford's friends were

then told distinctly and unequivocally by Dr. Smyth and myself that little hope remained of his recovery. Nevertheless every artist in Rome, except his true and sensible friend Chapman, thought it impossible that so great a man as Crawford could die at all. Crawford himself would never listen to the suggestion that there was danger; and I doubt whether at this moment, low as I understand he is, he does not cling tenaciously to the belief that he will soon be well. That his case has been of several years' standing he himself would never admit; that Mrs. Crawford knew to the contrary, and confessed it to their friend Mr. Terry, I have the authority of that gentlemen for stating. At last it was determined in a nondescript consultation of artists and doctors, among whom were some very sensible men, that Mr. Crawford should go to Paris and put himself under the care of the most eminent surgeons of that capitol. Previously, however, to his taking this step, great anxiety was expressed by some of his friends that the eye and the tumour should be *extirpated*; and Mr. Crawford, it was believed, would willingly have submitted to the operation. I strongly *protested* against it, and *positively* refused to perform it, stating that Mr. Crawford would not live, if performed, an hour—that he might live, if let alone, several months, and an opportunity be thereby afforded of seeing Mrs. Crawford and his family. Mr. Hooker, and nearly all his friends, particularly the artists, will bear testimony, I am sure, to my having taken this course; and *to myself more than to any one else*, is Mrs. Crawford indebted for the melancholy satisfaction of meeting her husband on this side of the grave. I need hardly remark that Mr. Crawford repaired to Paris, and placed himself under the care of surgeons of wide-world reputation, *all of whom concurred* with me in opinion, and *approved* of my practice to the fullest extent, as the following documents kindly furnished in reply to the following circular addressed to them, will abundantly show:—

CAMPAGNE DIODATI, NEAR GENEVA, }
Switzerland, June 7, 1857. }

Dear Sir:—"You had under your care some time ago Mr. Crawford, the celebrated sculptor of Rome, on account of a tumour in the orbit, behind the left eyeball. Will you be so obliging as to say whether you considered the disease at present, or from the commencement, of a *malignant* nature, and whether it could have been produced, or aggravated, by an *explorative operation* performed with great care, in two places between the ball of the eye and orbit with-

out being followed by hemorrhage or much pain, the wounds healing almost immediately by the first intention? Permit me also to ask if the exploring needle is not employed, all over the world, *justifiably and advantageously*, as a most important auxiliary in all doubtful cases, and whether the use of such needle can *convert a benign tumour into a malignant one*, and thereby produce a fatal result? I beg pardon for the trouble I give; and in asking a speedy reply to this letter, allow me to subscribe myself,

Very respectfully yours,

WILLIAM GIBSON, M. D.

“To Messrs. VELPEAU, NELATON, DESMARRES, Paris.”

To this interrogatory letter I speedily received the following replies:

“MUCH HONORED CONFRERE:—I saw Mr. Crawford twice only in consultation, at the commencement of this year, and it appeared to me that the tumor under which he labored was of a *malignant* nature.

“In my opinion, it is *absolutely impossible* that an explorative operation could be the cause of such disease, or could change the character of the tumor. The exploring needle is daily employed by *all* surgeons, in doubtful cases, without ever being followed by the slightest injury.

Yours truly,

“VELPEAU.

“Paris, June 10, 1857.

“To Professor WILLIAM GIBSON.”

“DEAR SIR AND HONORED CONFRERE:—I saw Mr. Crawford some months ago, and ascertained that he suffered from a tumor, which originated in the cavity of the orbit, and caused a protrusion of the eye-ball. This tumor is of a *cancerous* nature, and I am sure it has always presented the same character. It developed itself towards the superior and inner angle of the orbit, in the bony tissue. The symptoms which have existed *for a long time* leave no doubt that the tumor has extended towards the interior of the skull; and this is one of the reasons why we have declared that no operation whatever could be reasonably attempted for the cure of the patient. As for the *explorative operation*, it was *utterly incapable of aggravating* the condition of the patient, which nothing in the world, it may be said, *could aggravate*, as the disease was, *from the beginning, incurable*. I do not think, moreover, that the degeneration of the tumor could

have been *produced* or *hastened* by this operation. An *explorative operation* never produces such effects; and tumors, which sometimes have been supposed to have been *converted* into cancer, were *from the commencement really* cancerous; and I do not know of any fact that proves such transformation. I must add that *explorative operations* are made daily, and that the wounds from them are *insignificant* wounds, which heal in a few days. I think, therefore, that the aggravation which has been observed in Mr. Crawford's disease is an inevitable consequence of the *nature* of that disease from which he suffers, and that it can by no means be imputed to the operation. I assert this with the more confidence (*plus d'empressement*) as it is the result of *thorough conviction* on the subject; and I am astonished to be obliged to certify to a fact so very (*elementaire*) simple.

"Your devoted Confrere,

"NELATON.

"*Paris, June 13, 1857.*

"To Professor WILLIAM GIBSON."

"DEAR SIR: It is with pleasure I answer each of your questions.

"1st. I think that Mr. Crawford's disease has been *from the commencement* of a *malignant* nature. M. Velpeau entertains the same opinion.

"2d. The *explorative* needle, in my opinion, and in that of *every one else*, can do no injury, if properly introduced between the globe of the eye and the walls of the orbit.

"3d. The same needle is daily employed for the purpose of throwing light upon the nature and treatment of tumours.

"4th. An *explorative operation* can never convert a *benign* tumour into a *malignant* one.

"Accept, sir, my respectful salutations.

"DESMARRES.

"*Paris, 14th June, 1857.*

"Professor WILLIAM GIBSON."

Soon after my arrival in Paris, on the 23d of June, from Geneva, I called upon my friend Dr. Beylard, a native of Philadelphia, long resident in Paris, who, after having enjoyed the greatest medical advantages of that capital, now stands high in his profession, and is destined, ere long, to become—like Ricord, a Baltimorean—one of its brightest ornaments. Finding that he had been in attendance

also upon Mr. Crawford, and was the intimate friend and correspondent of Mrs. Crawford, now with her husband in London, I requested him to furnish me with such document on the subject in question as he could honorably and conscientiously afford. The following note will show, like those of his distinguished compeers, how little I deserve the censure bestowed upon me by Mrs. Crawford :

“ *Paris*, June 27, 1857.

“ DEAR DOCTOR : I reply to your request as regards the *explorative* operation practised upon Mr. Crawford. My opinion is, that it was *necessary*, for the purpose of ascertaining whether the tumour developed behind the ball of the eye did not contain a *fluid*—cysts of the orbit being often cured by this means.

“ As to the point of converting, by any *operation whatever*, a simple tumour into one of a *malignant* character, I do not hesitate to say, that I consider it an *utter impossibility*. I am perfectly convinced that the investigation made by you *could not, in the slightest degree*, aggravate the disease of our celebrated compatriot.

“ Very truly yours,

“ E. BEYLARD.

“ Professor GIBSON, Meurice’s Hotel.”

On the 29th June, I called with Dr. Beylard to see my old friend Sichel—the greatest oculist, in my estimation, upon earth—who had recently recovered from a dangerous attack of pleurisy. In course of conversation, Crawford’s case came up, when he expressed his astonishment at the treatment I had received ; and upon the contents of the letters of Velpeau, Nelaton, and Desmarres being reported to him, said at once, in his peculiarly animated style, “ My testimony, if you desire it, shall be at your service immediately.” Upon my replying in the affirmative, and thanking him for his kindness, he hurried us into his studio and wrote the following :

“ MY DEAR PROFESSOR : Mr. Crawford’s affection when I saw him—and I only saw him once—seemed to me an exostosis of the bones of the orbit. I proposed a general treatment. *Whatever* operation you may have practised in order to explore the nature of the disease, and *whatever* may be *actually* its nature, I am *thoroughly* convinced

that your operation can have had no unfavorable influence on Mr. Crawford's local affection or general health.

"Believe me, my dear Doctor,

"Yours' very faithfully,

"SICHEL, D. M.

"Professor GIBSON.

"Paris, June 29, 1857."

It will be seen from the above statement and testimony how very unjust, to say the least, is the *charge* preferred against me by Mrs. Crawford, for whom and for whose husband I have always felt, from the moment of their affliction, the deepest sympathy. That she is capable of forming an opinion on a medical or surgical subject, intelligent as she may be, and I dare say is, in her own sphere, I cannot possibly admit; nor can it be reasonably expected that I should quietly fold my arms and suffer my reputation to be assailed, through the kink or crotchet of any one, without any effort whatever to defend it. Had the question, however, been brought before the *medical* profession in any part of the world, and particularly before the thousands of medical men throughout the United States I have educated, in conjunction with my distinguished colleagues in the University of Pennsylvania, who well know and can appreciate my position, I should probably have remained perfectly silent. But I am now writing for the American *people*, for my countrymen *out of the profession*, before whom I have been *painfully* dragged. Can I be accused then of egotism if I put to them the question: Is it possible that a *graduate* of the University of *Edinburgh*—a *house* pupil of Sir Charles Bell—an attendant upon the lectures of Abernethy, Sir Astley Cooper, Lawrence, and a host of other distinguished men—a Professor of Surgery of thirty-five years' standing—as the successor of Dr. Physick in the University of Pennsylvania, recommended by him to the trustees of that University to fill the chair which he himself had so long filled with the highest honor to himself and his country—an army surgeon during the whole of the American war of 1812—a surgeon and clinical lecturer for twenty-five years in the Philadelphia Hospital (one of the largest hospitals in the world, styled by Miss Martineau, "a *palace for paupers*,"—the author of extensive surgical works, well known in Europe and America—a surgeon who has performed hundreds of times, successfully, the most difficult and dangerous operations, in public and in extensive

private practice—one whose hand has never been known to tremble, or sight to fail—could be guilty of the irresistably ridiculous charge imputed to him ! I repeat, I put it to the American *people*—(a people with more native talent and tact and better *practical* education than any other people upon the face of the globe ; a people from whom Crawford sprang, and from a poor, friendless, self-educated boy, raised himself by undaunted energy and perseverance to a height only exceeded, perhaps, by that of Canova or Thorswalden, and at last has fallen, not through any fault or negligence or ignorance, or want of sympathy on my part, but from *exertions* of his own, which have addled the inmost texture of his brain, and converted its fine fabric into a mass of morbid degeneration, which God only in his infinite wisdom is able to remove)—yes, to the American people (who from Maine to California have heard of Crawford's noble works, and who would execrate the man whom they could *imagine* to have been, even remotely, the cause of his death,) whether independently of the testimony I have produced and could produce to an unlimited extent, and that with all my opportunities and experience, I could be such a dolt as to have inflicted injury by an operation any surgical tyro could have executed with perfect precision and ease ?

I have noticed this charge, I may also add, not on my own account merely—being fortunately independent either of public approbation or censure—but for the sake of that profession which I still dearly love and honor, and to which I have devoted the best energies of a somewhat long, and, I trust, useful and conscientious life. But what encouragement can be held out for young men of the present day, too often “struggling for life among the waters,” to enter upon a calling the most difficult, responsible and ill re-quitted of all others, and after having reached its highest honors, to find themselves undeservedly condemned, and perhaps executed, and that in too many instances, after *gratuitous* services, rendered from the purest and most benevolent motives.

I hope I have said nothing throughout this statement, bearing upon the *motives* of Mrs. Crawford, which I certainly do not mean to impeach in the slightest degree, or unbecoming to me as a gentleman. I sympathize deeply with her, as a devoted wife and mother, and as a lady of highest character, exceedingly beloved by her friends, and cherished and admired wherever she is known. She has feelingly invoked, in her published statement, the assistance of a “most merciful High Priest, a good and gracious God,” to whose

will she professes to bow with humble resignation. To this I respond from the bottom of my heart—*Amen*, and with the utmost commiseration for her suffering husband, now slowly winging his way to a better world, and for herself and “shorn lambs.”

I respectfully subscribe myself,

WILLIAM GIBSON, M. D., L. L. D.,

“*Emeritus*,” Professor of Surgery
in the University of Pennsylvania.

SECRET MEDICINES.—[We ask attention to the following remarks, extracted from an editorial article in the *Lancet* (June 6), because the public seem not to have a just appreciation of the ethics of secrecy in medicine]:

“In pursuance of our inquiry into the ethics of ‘secrecy,’ we beg to-day to call the attention of our readers to the false analogies put forward by the supporters of trading in occult remedies.

“In the first place, it is said there is something offered to society for sale. If society wants it, let it bid; let it buy. This is the usual course, and why must it be reversed? The reason why is this: An invention in art or manufactures, or a discovery in the applied sciences, has a money value. This money value is an unknown quantity; it may be great, or it may be small, but it is not the less a money value. The inability to determine the exact value of the commodity, does not preclude the possibility of a bargain upon sound principles; society may lose in the transaction, or the inventor may lose; but the loss is a money loss on either side, accordingly as society may have over or under-rated the value of the discovery. And here the question terminates. Such bargains are made every day; values fluctuate, or are in their nature indeterminate, and speculators run their risk. But the profit and the loss are capable of comparison. A gain in money is comparable to a loss in money. It is so many pounds better. But who can compare pain and life with money? No one has ever yet determined how sharp a pang may, upon commercial principles, be relieved for a guinea; neither have we as yet, happily, computed the value of an hour or even a minute of life in pounds sterling. It is obvious, then, that as the profit and the loss in the sale of medical knowledge are not like values, the analogy between such a transaction and the operations

of trade, or even the sale of inventions having a pecuniary measure of value, is a false one. It is a wretched sham, put forward to blind those who have not sufficient dialectical skill to unmask the sophism at which their hearts and consciences rebel.

“ Let us examine another of the defences. It is urged that, after all, the vendor of a medical secret is only doing as an individual what the profession does as a body ; that he is putting a price upon that which society is ignorant of and requires ; that not only does the profession of medicine price its assistance and succour, but all who possess special skill or knowledge do the same ; that a charge of trading upon misery is as applicable to the body as to the individual. But is *not* so. This *tu quoque* cry, this other false analogy, even though boldly asserted, is but a sorry pretence, when looked at closely. Medical men price their labor, not their knowledge. The labor, being skilled labor, commands a more or less high price. The repute of an individual makes his labor more valuable; the demand raises the price. Not of his skill, but of his labor. And this is a sound commercial principle; the most high-minded may profit by it, the most delicate and sensitive minds need not shrink from such a result. And why ? Because there is a legitimate relation between *labor* and *money* ; none between knowledge of what is *priceless* and *money*. To go a step further, what is the practitioner paid for ? Certainly not for a secret—not even for his knowledge—but only for his application of what is distributed amongst thousands. If A refuses to act, B will. Both A and B are in possession of something hidden from the public, or, rather, unknown to the public. If A and B, and all the other medical practitioners combined, and declined to render their services for less than an enormous reward, then they would be pricing their knowledge—trading upon life and pain—selling a secret, in short. What does secreting a remedy for individual benefit amount to, then ? what does it represent ? Nothing more or less than a gigantic combination. The individual possesses a secret which is peculiarly his own, and not more so, as the medical knowledge of the body of the profession. Let us imagine the profession to combine and act as an individual—to say to society : ‘ We have knowledge, and you need it ; you suffer, we can give you ease ; you are about to die, and we can save you. But first make us rich, give us dignities, place us upon the pinnacle of human prosperity, and then the knowledge is yours.’ This is the true analogy. Who would defend us in such a course ? Should we not, as a body, deserve the execration of society ? Are there any terms of reproach

adequate to express the inhumanity, selfishness, and turpitude of such conduct ?

“Space prevents us from doing more than enumerating some subsidiary incentives to publicity in relation to medical discoveries. We should never forget that we are the legatees of our predecessors. Hitherto, all great discoveries in medicine have come down to us without a price. We owe to posterity a debt which we cannot pay to those who have gone down to the grave in honor. It is our business to keep up, in unbroken succession, the long list of benefactions in which we have all been participators. To begin now, in the present day, to fall away from the charity of our predecessors, is sacrilege—nothing more nor less than ‘rank blasphemy’ against the memories of those departed worthies, who, in all singleness of purpose, sought not their own private advantage, but how they might diminish the aggregate of human suffering. Again, it may be as well to say, that no man has a right to wealth. All who work have a right to subsistence in their sphere of life, even to competence, but not to great riches. If wealth pours in, it is probably deserved; it is very likely the meed of merit. But he who looks forward to *wealth* as something he can *claim* in return for his services or discoveries as an indefeasible right, has far mistaken his moral position. Finally, our mission is to work, and often to fail in securing our reward; not to trade in tears, or put a money value upon the pains and diseases which afflict our species.”

DR. FELL'S TREATMENT OF CANCER.—A few months since, we informed our readers that the Governors of the Middlesex Hospital had, under the advice and with the concurrence of the medical officers of that institution, placed at the disposal of one Dr. Fell a certain number of beds in the department of the hospital especially devoted to the treatment of cancer. Dr. Fell is, as is generally known, an American surgeon, who has obtained extensive notoriety, as being the inventor of a novel method of curing or treating cancer. He professes to do what no one has yet done before him, viz: by the action of certain remedies, to destroy the constitutional character of cancer; and, by the aid of a caustic, to necrose, destroy, and eliminate *en masse*, root and stock, the local tumour; doing this in a manner which, though not quite according to the ancient aphorism in

respect of the *cito*, nevertheless acts, as is affirmed, *tuto* and moderately *fecundè*.

Now this, as we understand, was the way in which Dr. Fell so rapidly reached the high position of *interim* surgeon to a metropolitan hospital. Having attained to an eminent degree of private practice—and we need hardly say, that all practice in London, which is eminent, is also invariably highly lucrative—he liberally invited his professional brethren to come, and be themselves the witnesses of his method of triumphing over this arch enemy of poor humanity. Many came; and some were convinced that Dr. Fell had made a decided hit. So good, feasible, and reasonable, indeed, did his method appear in its results, to certain reflecting minds, that to them Dr. Fell's offer of operating in a public hospital was thought worthy of consideration. Under certain conditions, therefore, Dr. Fell was permitted to enter the Middlesex Hospital as a semi-public operator. The nature of his remedy, and his mode of applying it, were to be imparted to the surgeons of that hospital; and, after a given time, the secret of both, and the results as exhibited, were to be fully published, to the anxious admiration of the skeptical and the faithful.

We observed at the time, that we thought, once in a way at least, the public could hardly accuse the profession of being deaf to the voice of a charming novelty; and that Dr. Fell could not claim a serene seat among the victims of prejudice and bigotry, like the modern Hygeist, Homœopath, Mesmerist, *et hoc genus omne*, who pretend, in this respect, to row in the same boat with the persecuted Galileo and Harvey. Dr. Fell has the fairest of play. We promised at the time, and we repeat the promise, that if, in the event, his performances equal his pretensions, we will do him justice before the world; but we think our patience is over-taxed. There are two parties to the bargain into which the Doctor has entered; and he must not, therefore, expect to have it all his own way. The compact is, as we understand it, this—that the whole history of the remedy and the treatment shall be disclosed to the public whenever the experiments carried on in the Middlesex Hospital shall have reached a degree of completeness sufficient to enable the surgeon-judges to express an opinion thereon. Has not that time arrived? We cannot doubt it. It is well known that Dr. Fell has operated on numerous, and, as we understand, well selected cases of cancer; and that the tumours have been removed by his method. We conclude, therefore, that, as far as the mere opinion itself is concerned

the adjudicators could give us no more or better information a year hence than they can do at the present moment. The only pretence of delaying judgment which can be suggested is, that as yet no opinion can be given regarding the secondary consequences of the operation. But such a reason might be given a year hence with almost as much show of sense as at the present moment; for if, in Dr. Fell's well chosen cases, the cancer does not return during twelve months, there is no improbability but that it will do so at a later period, as happens in cases treated by the knife.

This, then, the most important part of Dr. Fell's pretences—that which relates to the eradication of the constitutional cancer—cannot receive any solution from these experiments, unless we are willing to wait patiently two or three years, quiet expectants of a large experience. Consequently, the matter, stripped of all varnish, rests exactly where we previously placed it; and the question to be answered is simply this: Can Dr. Fell, by the aid of his new caustic, remove a cancer-mass in a more effectual, pleasant, and scientific manner, than can be done by the methods of oblation ordinarily practised? Now, if this question can be answered at once (and who can doubt that it may be?), why is the reply delayed?

The question is one which the profession has a right to urge. A secret remedy—shall we say a *nostrum*?—is at the present moment widely and extensively used, and, in a certain manner, *under the patronage of the profession*. It was not exactly thus that Jenner and Harvey promulgated their discoveries; nor is the proceeding altogether according to the medical ethics of even these commercial times; still, under the circumstances of the case, we were not unwilling to stretch a point in favor of Dr. Fell; but there are limits to forbearance in this direction. The advertising sheets of our journals have been informing us for months that “shortly will appear” the grand secret; but still it comes not. Puffs of Dr. Fell find their way into the daily prints; and some are of such a character that one of the medical staff of the Middlesex Hospital thinks himself bound to disclaim all connection with the trumpet-blowing, on his own and his colleague's behalf; expressing, at the same time, a hope that Dr. Fell is entirely innocent of partaking in it. Then again, such is the repute Dr. Fell has gained under the eaves of the Middlesex Hospital, that, *per fas* and *nefas*, young and old, from far and near, afflicted with cancer, are rushing to his hands. Are they all rushing to a delusion?

Is the operation extreme and lengthened torture, or a mild and gentle process? Does it remove the tumor more securely and effectually than the knife does? What are its advantages, if it has any, over established practices? These are questions which, we plainly say, ought to be at once answered by the surgeons of the Middlesex Hospital. The cause of suffering humanity and the honor of the profession demand an answer. The materials for the solution of the questions are abundantly sufficient in their hands. They know how the tumor is removed; the duration of the operation; the pain attending it; the character of the wound, and its mode and times of healing; these things they know, for they have seen them. Why should there be more delay? On the most material point—the greater or less degree of probability of the recurrence of the cancer—they can evidently give us no information of any value whatever, unless they delay their report until many of us are in our graves; and, even then, what would be the worth of a few statistics drawn from operations performed on a given number of selected cases?

mis-
print A grave responsibility rests upon the surgeons of the Middlesex Hospital. Common sense, indeed, would seem to tell us that excessive and long enduring pain must attend the removal of large tumors by caustics; and the experience of most of us has made us acquainted with individual cases, where weeks of such intense suffering has been endured from this very method of ablation. Now, if a few cuts of the knife, rapidly made under the influence of chloroform, are, after all, a better operation than Dr. Fell's, the public cannot too quickly be told so; for it is evident that, if such be the verdict given, an immense amount of needless suffering will be immediately spared the unfortunate victims of cancer; and that, the fewer experiments tried to test the fact, the better for the world and for the credit of the profession.—*British Med. Journal*, May 16, 1857.

Since the preceding article was in type, we have received a very recent number of the *Lancet*, (June 6,) from which it appears that Dr. Fell has at last made his plan public:

“The caustic employed is a combination of chloride of zinc, the Canadian blood-root, flour and water, and cochineal, to impart to the mass a deep red color. This is applied either alone or on strips of linen. In cases where there is no ulceration of the surface, the skin is previously destroyed by the application of strong nitric acid. After the application of the paste to the charred surface, incisions of three-eighths or half an inch are made through the destroyed tis-

sue, the caustic being again applied, and the incisions again deepened. Care is taken that the incisions should not extend to the living tissue. Strips of linen, covered with the paste, are inserted into these fissures. In three or four weeks, the incisions penetrate into the softer tissues, beneath which the line of demarkation has become established. The case is now left alone until the whole mass comes away like an eschar. It is stated, that the destructive process does not seem to involve the nerves to the same extent as the vessels, for the former were found to enter the diseased mass, and were the last to give way to the caustic. The pain varies in different individuals.

“Such, then, is the main feature of this wonderful secret. Enough for the present upon that head. It still remains, however, to be proved—a proof which can only be determined by time—whether the remedy of Dr. Fell possesses any real advantages over the knife, or other modifications of the caustic treatment long known and long practiced. If the system be not freed from the disease, there would appear to be ‘great cry and little wool.’ ”

CONGRESS OF GERMAN PHYSICIANS AND NATURALISTS.—This distinguished body will convene at Bonn, on the 18th September, and be in session one week.

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B. FORDYCE BARKER, M., D., Professor of Midwifery, and Diseases of Women and Children.

R. OGDEN DOREMUS, M. D., Professor of Chemistry.

J. M. CARNOCHAN, M. D., Professor of Surgery.

EDMUND R. PEASLEE, M. D., Professor of Physiology and Pathology.

HENRY G. COX, M. D., Professor of Theory and Practice of Medicine, and of Clinical Medicine.

TIMOTHY CHILDS, M. D., Demonstrator of Anatomy.

The Fall Course of Lectures will commence September 15, 1857, and continue until October 30th, when the Winter Course will be resumed. Lectures will be delivered, daily, at the College or Hospital by the following gentlemen :

On Diseases peculiar to Women by Professor BARKER.

On Practical Chemistry by Professor DOREMUS.

On Amputations by Professor CARNOCHAN.

On Diseases of the Skin by Professor COX.

On the Microscope as applied to the Diagnosis of Disease, by Professor CHILDS.

On Auscultation and Percussion by J. HANCOCK DOUGLAS, M. D.

On Practical Obstetrics by CHARLES A. BUDD, M. D.

The Practical Instruction in Toxicological Chemistry will commence three weeks in advance of the Winter Course. Students will have an opportunity of analysing cases from the Coroner. Fee, \$5, to defray the expenses of Laboratory.

Terms. For Summer and Winter Course, inclusive, \$105 ; for Summer Course alone \$25.

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THE OHIO
MEDICAL AND SURGICAL JOURNAL.

Vol. 10.

Columbus, November 1, 1857.

No. 2.

PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Fractures and Displacements of the Ossa Nasi.* By Prof.
FRANK HASTINGS HAMILTON, M. D., of Buffalo, N. Y.

OF twenty-two cases of fracture of the ossa nasi recorded in my report on "Deformities after fractures," (1) only thirteen were seen by a surgeon in time to afford relief. It seemed to me necessary, therefore, that we should be instructed how frequently the nature of this accident was overlooked by the friends, and even by the surgeon himself, to the end that we might be thus admonished of the necessity of always instituting in such cases, careful and thorough examinations. In some of the cases reported, where surgeons were called in time, and a deformity remains, it is not improbable that the accident was not recognized. The rapidity with which swelling ensues after severe blows upon the nose, concealing at once the bones, and lifting the skin even above its natural level, explains these mistakes. The nose, also, is remarkably sensitive, and the patient is often exceedingly reluctant to submit to a thorough examination. It ought, however, not to be forgotten that the omission on the part of the surgeon to do his duty will not always be excused, even though the patient himself has protested against his interference, especially where an organ so prominent, and so important to the harmony of the face, is the subject of his neglect or mal-adjustment, since the most trivial deviation from its original form or position, even to the extent of one or two lines, becomes a serious deformity.

(1) Transactions of the American Medical Association, vol. 8, pp. 355, 362 1355.

When the ossa nasi are struck with considerable force, from before and from above, a transverse fracture occurs usually within from three to six lines of their lower and free margins, and the fragments are simply displaced backwards, or if the blow is received partially upon one side, they are displaced more or less laterally. This is what will happen in a great majority of cases, as I have proven by examinations of the noses of those persons who have been the subjects of this accident, both before and after death, and by repeated experiments upon the recent subject.

These fragments are generally loose and easily pressed back into place by the use of a proper instrument. A silver female catheter, which we have seen recommended by surgeons, may answer well enough in a few instances, but it will more often fail. The diameter of the meatus at this point, where the instrument must reach in order to make effective pressure upon the ossa nasi, is on the average not more than two lines, and when the membrane which lines it is injured, it becomes quickly swollen, and reduces the breadth of the channel to a line or less. Under these circumstances, any instrument of the size of a female catheter could only be made to reach and press against the nasal process of the superior maxilla, which is too firm and unyielding to allow it to pass without the employment of unwarrantable force. In this way it happens that the operator is occasionally surprised to find how much resistance is opposed to his efforts to lift the bones, and after repeated unsuccessful attempts the case is not unfrequently given over. If, however, he had used a smaller instrument, he would have found almost no resistance whatever. A straight steel director, or sound, or sometimes even a much smaller instrument, if possessing sufficient firmness, is more suitable than the catheter. For the same reason, also, one ought never to wrap the end of the instrument with a piece of cotton cloth as some have, I suspect, without much consideration, recommended.

What I have said of the facility with which these bones may be replaced, when a proper instrument is employed, is true only when the treatment is adopted immediately, or at most within a few days after the accident.

Boyer, Malgaigne, and others have noticed the fact that these fractures were repaired with great rapidity. Hippocrates thought the union was generally complete in six days; and in a case which has come under my own observation, the fragments were quite firmly united on the seventh day.

Case.—A lad aged eleven years had the right nasal bone broken through its lower third, and displaced to the right side. Seven days after the accident he was brought to me. I introduced a strong steel instrument into the right nostril, and pressed upward and to the left, while with my thumb I pressed forcibly upon the right side of the nose. My object was to lift the bone, and carry it a little over to the left side. During the effort, the bones were felt to crack and give way slightly, but not sufficiently. I then gave him chloroform, as the manipulation had proved very painful, and again pressed in the same manner with great force, until the restoration seemed complete.

Nor has Malgaigne, whose observations are always very accurate, overlooked the fact, also, that their repair is effected without the interposition of provisional callus, but as it were "*par premiere intention.*" My own observation confirms this statement. Among all the specimens which I have seen in the various college and private collections illustrating fractures of the ossa nasi, and amounting in all to over forty, in no instance has there been detected, after a careful examination, the slightest trace of provisional callus.

I am not certain that it will always be found so easy to retain these loose fragments in place, as it is to replace them. The very swelling which takes place so promptly under the skin tends to depress the fragments, unsupported as they are by any counter force; a tendency which, possibly, is in some instances increased by attempts on the part of the patient to clear his nostrils by snuffing and hawking. I have, in one instance, noticed very plainly a motion in the fragments when such efforts were made. How we are to remedy this I am not prepared to say. None of the plans which I have seen suggested possess, in my estimation, very much practical value. Few patients will consent to the introduction of pledgets of lint, or of stuffed bags, or, indeed, of anything else, sufficiently far up into the nostril to answer any useful purpose. The membrane is too sensitive and too intolerant of irritants to enable us to have recourse generally to such methods. Then, too, it would require on the part of the surgeon more than ordinary tact to accomplish so nice and delicate an adjustment of the supports from below as these cases demand, where the slightest excess of pressure or the least fault in the position of the compress must defeat the purpose of the operator.

Yet, if one were disposed to make the attempt in certain cases where the comminution was very great, or where for any other reason the fragments would not remain in place, I think there could

be no better plan than to push up in succession a number of small pledgets of patent lint, smeared with simple cerate, to each one of which there has been attached a separate string, so arranged as that their relative position may be recognized, and that they may at a suitable time be removed in the order of their introduction.

The employment of canulas, as recommended by Boyer, B. Bell and others, allow of the nostrils being stuffed, without interfering materially with the breathing; a provision however which is quite unnecessary with a majority of persons, so long as there exists no impediment to the free admission of air through the fauces.

With nicely adjusted compresses made of soft cotton or lint, and secured upon the outside of the nose with delicate strips of adhesive plaster or rollers, we shall be better able to prevent the fragments from becoming displaced outwards, than by moulds of wax, of lead or of gutta percha, under which it is impossible to see from hour to hour what is transpiring.

The complicated apparatus devised by Dubois and recommended by Malgaigne, to lift the bones and retain them in place, seems to me indeed very ingenious, but destitute of a single practical advantage.

A more considerable force than that which I have first supposed, will break, generally, the ossa nasi transversely and a little above their middle, while, at the same time, the nasal processes of the superior maxillary bones may suffer slightly.

With neither of these accidents is the cribriform plate of the ethmoid likely to be broken or disturbed. Indeed, in numerous experiments made upon the recent subject, and in which the force of the blow was directed backwards and upwards, breaking and comminuting the nasal bones above and below their middle, with, also, the nasal processes of the superior maxillary bones, and the septum nasi, the cribriform plate of the ethmoid was, without an exception, uninjured. The exceeding tenuity and flexibility of the septum nasi at certain points, prevents effectually the concussion from being communicated through it to the base of the brain. If, therefore, after these accidents, cerebral symptoms are occasionally present, as I have myself twice seen, (a) they must be due rather to the concussive effects of the blow upon the very summit of the nasal bones, where they rest immediately upon the nasal spine of the os frontis, or to some direct impression upon the skull itself.

(a). Report on deformities after fractures; cases 16 and 18.

The amount of force requisite to break in the nasal bones, at their upper third, is very great; no less, indeed, than is requisite to fracture the os frontis. If they do finally yield at this point, then no doubt the base of the skull must yield also. Nor do I think patients could often be expected to recover from an accident so severe. To this class of fractures belongs the specimen contained in my museum, in which not only both of the nasal bones are sent in—the nasal spine being broken at its base—but also the os frontis is depressed, the nasal processes of the upper maxillary bones broken and greatly displaced, and the anterior half of the cribriform plate of the ethmoid forced up into the base of the brain. If it is meant that in *these* cases the patient is in danger from injury done to the base of the skull, through the fracture and depression of the ossa nasi, we can appreciate the value of the opinion; but we do not understand how this danger can exist when the nasal spine of the os frontis is not broken, and the upper ends of the nasal bones are not displaced backwards. But, admitting that it were possible in this way to force up the base of the skull, it does not seem to me that we ought to attach any value to the advice occasionally given, to attempt to restore the broken ethmoid by seizing upon the septum and pulling downwards. A force sufficient to break the base of the skull, never fails to comminute and detach almost completely the septum nasi. We are to proceed in such a case as we would in a case of broken skull. We must lay open the skin freely, and with appropriate instruments seek to elevate and remove, if necessary, the fragments. Indeed, after such accidents, we shall generally see plainly enough that death is inevitable, and that our services will be of no value.

Occasionally, I have observed, the bones are neither broken at their lower ends, nor through their central diameters, but only at their lateral, serrated or imbricated margins. This is rather a displacement, or dislocation, than a fracture. It is more likely to happen, I think, in childhood than in middle or old age, as in the following example:

Case.—Thomas Kelley, aged 4 years, was kicked by a horse. Two hours afterwards, when he was first seen by a surgeon, the nose and face were much swollen, and the fracture was overlooked.

One year after the accident, I found both nasal bones depressed through nearly their whole length, and especially in their lower halves. The right nasal process was also much depressed, and the

right nostril obstructed. The lachrymal canals upon this side were closed.

Sometimes the lower ends of the nasal bones are bent backwards, or laterally, constituting a partial fracture.

Case.—A lad, aged 10 years, was hit by one of his mates accidentally, with his elbow, upon the left side of his nose. I was immediately called, and found the lower end of the left os nasi displaced laterally and backwards, so that it rested under the lower end of the right os nasi. There did not appear to be any fracture beyond that which was inevitable by the mere separation of its serrated margins from the bone adjoining. The angle formed by the bone at the point where the bending had occurred, was smoothe and rounded and not abrupt as in a complete fracture.

With a steel instrument, introduced into the left nostril, I attempted to lift the bone to its place. The membrane was very sensitive, and the patient very restless under my repeated efforts. I pressed upwards with considerable force, and succeeded at length in bringing the bone nearly into position.

If there is more complete displacement, the upper ends are not usually forced backwards, but rather a very little forwards from their articulations with the os frontis, and the bones then swing, as it were, upon the lower ends of the nasal spine, as upon a pivot. In this condition, they are very firmly locked, and it requires considerable force, applied under their lower extremities, to restore them to place.

Cases.—Such seemed to be the position of the bones in the case of the lad Kelley, already mentioned, and also in a German whose nose was flattened by a severe blow, when he was eleven years old, whom I saw thirteen years after the accident in the Buffalo hospital. In this last example the bones were very much displaced backwards.

In children, also, the nasal bones may be spread and flattened, the lateral margins not being depressed or displaced, but only the mesial line or arch forced back, so as to press aside the processes of the superior maxilla: which deformity may become permanent.

Case.—A block of wood fell upon a child three weeks old, as she was lying in the cradle. The nature of the injury was not understood by the parents, and no surgeon was called. The ossa nasi are now, twelve years after the accident, much wider than is natural, and depressed; the nasal processes of the superior maxilla appearing to have been spread asunder.

Case.—Jacob Kibbs, a German, aged 7 years, fell from a height of

forty feet, striking on his face. His parents did not suspect the injury, and no surgeon was called. Twenty four years after this I found the nose almost flat. The nasal bones appeared unusually wide, and were sunken between the processes of the upper maxillary bones, which latter might be recognized by two parallel ridges on each side, slightly rising above the level of the ossa nasi.

Benjamin Bell and others have spoken of tedious ulcers, polypi, necrosis, fistula, lacrymalis, abscesses, impeded respiration, and impairment of the sense of smell and of speech, as circumstances apt to result from these injuries, and it is certain that such consequences have occasionally followed; but they must sometimes be regarded as accidents due to the state of the general system, and as having no connection with the fracture, except as this injury served to awaken certain vicious tendencies.

Case.—Two years ago a gentleman, then twenty-five years old, was struck accidentally upon the right side of his nose by a board, and the ossa nasi were displaced to the left. A surgeon made an attempt to reduce them, but did not succeed, and they have remained displaced ever since.

The nose for a time was much swollen. A few months after the accident a purulent discharge commenced from the right nostril, and at length an abscess formed in the right cheek. The abscess is now healed, but the nose continues to discharge pus, and occasionally it bleeds freely. There is a perforation of the septum, of the size of a three cent piece, which is continuing to enlarge.

No hereditary maladies exist in the family, except that, on his father's side, it has been generally observed that wounds do not heal kindly. The same is the fact with him. When a child, he was also very subject to epistaxis; at sixteen, a pulmonary difficulty began, and he had more or less cough, with hæmoptysis, for two years. Since then his health has been good. He is a lawyer by profession, but of late he has lived in the country upon a farm, and has accustomed himself to much out-door exercise.

As to the prognosis in these fractures, I can only say that either owing to the ignorance and carelessness of the patients themselves, who neglect to call a surgeon in time, or to the difficulty of diagnosis, or to the greater difficulty in maintaining an adjustment of the fragments, it has hitherto happened that, after a fracture of the ossa nassi more or less deformity has usually remained. I have never seen but three which could be said to be perfectly restored.

ART. II.—*Fractures and Displacements of the Septum Narium.*

Fractures or displacements of the septum narium must occur to some extent in all fractures of the ossa nasi accompanied with depression; but they are also occasionally met with as the results of a blow upon the nose, which has been insufficient to break the bones, and in which only the cartilaginous portion of the nose has been bent inward upon the septum.

Of these simple, uncomplicated accidents I have seen seven; in three of which no surgeon was employed, or surgical treatment of any kind adopted, and it is quite probable that only in a small proportion of all the cases was the nature of the accident recognized. Such, at least, has been generally the statement of the patients themselves. The same causes will explain this which have been invoked to explain similar oversights in cases of broken ossa nasi. To which we may add, as an additional reason why it may be overlooked, the frequency of lateral distortions or deviations in the natural development of this septum.

The cartilaginous portion of the septum is that which is most frequently displaced by violence, and then it is usually at the point of its articulation with the bony septum. Next in point of frequency the perpendicular nasal plate is broken, and especially where it approaches the vomer. We omit in this enumeration, of course, those cases where the nasal bones themselves are broken down, in most or all of which, as we have already said, the perpendicular plate is more or less fractured and displaced. We cannot say how often the vomer is broken, since it is beyond our observation, except in autopsies. It is probable, however, that the force of the concussion rarely reaches it, the cartilage or the perpendicular plate giving way first and easily.

Where the deviation is only lateral, the results are less serious, yet sufficiently so in a few instances to demand our attention. Lateral obliquity of the lower portion of the nose follows generally, but not uniformly, a lateral displacement of the cartilage, and when it does exist it is not always proportioned to the amount of displacement existing in the septum, so that the septum is then made to project obliquely across the nasal passage, causing often a serious obstruction and permanent inconvenience. In one instance, also, I have known it to occasion a chronic catarrh.

Case.—A lad, (æt. 15,) was struck violently on the nose, which became immediately much swollen, but no surgeon was called.

Eight years after, I found the septum displaced laterally and to the left side, producing also a slight lateral inclination of the end of the nose. He was unable to breathe freely through the left nostril, and from the same side a catarrhal discharge had continued from the time of the accident.

The following example, in which the accident has been followed by a morbid condition of the cutaneous glands, is of more difficult explanation :

Case.—A young man, (æt. 23,) called upon me, supposing that he had a polypus nasi. I found that in consequence of a fall upon the ice, seven years before, the septum narium had been displaced to the right so as to almost completely close this nostril. In very cold weather, when the vessels of the membrane are contracted the passage is more free. The left nostril is proportionably wide.

During the last four or five years, the right side of his face has been subject to profuse perspirations. It is almost constant in summer, and only occasional in winter. The line of division between the perspiring and non-perspiring portions of the face passes perpendicularly from the top of the centre of the forehead, along the ridge of the nose, and down to the centre of the chin. The phenomenon is due, perhaps, to an increased vascularity in the right side of the face ; possibly to some peculiarity in the condition of the nervous trunks, occasioned by the nasal obstruction.

A depression of the cartilage forming a portion of the ridge of the nose is necessarily accompanied with a corresponding degree of lateral displacement, with or without fracture, of its perpendicular portion, and produces, therefore, not only great deformity, sometimes a complete flattening of the end of the nose, but, also, in some instances, complete obstruction of the nostrils.

We conclude, from all that we have seen, that fractures and displacements of the septum narium are generally followed by permanent deformity, and occasionally with still more serious results. We suggest, therefore, a more careful examination in recent injuries, with a view to the ascertainment of its lesions, and it would be well, certainly, if we could devise some reliable mode of treatment.

It is doubtful whether a partition so thin and unsupported can ever be well adjusted and supported by artificial means. We possess, however, one advantage in the treatment of this accident which we do not in the treatment of broken ossa nasi, viz : facility of observation and of approach, and if we can do little with plugs and sup-

ports in the one case, we may possibly do more in the other. Nothing seems more rational, then, than to plug carefully and equally each nostril, with pledgets of lint, while we cover the outside of the nose completely with a nicely moulded gutta percha splint or case, which ought to be made to press snugly upon the sides, and permitting these to remain for several weeks, or until the cure is completed. The *papier maché* of Dzondi, employed by him in cases of broken *ossa nasi*, would be equally applicable here; but the gutta percha, as being more plastic, and hardening more quickly, ought to be preferred.

Attempts to remedy the deformities of the nose at a later period, belong to the department of anaplastic surgery, and the modes of procedure must be varied according to the circumstances of the case.

The following example will serve as an illustration of what may sometimes be accomplished in these cases:

Case.—A young man fell from a two story window, striking upon his face. A surgeon was called, but he did not discover the nature of the injury to his nose.

One year after the accident he called upon me for relief. The cartilaginous portion of the septum was broken just at the ends of the nasal bones, and forced backwards about three lines, producing a striking depression at this point of the ridge of the nose, while at the same time the end of the nose was thrown up. The deformity was very unseemly, and annoying both to himself and to his friends, who at first could scarcely recognize him.

Operation.—I introduced a narrow, sharp-pointed bistoury through the skin of the nose on the right side, and resting its edge upon the ridge at the junction of the cartilage with the *ossa nasi*, I cut the cartilaginous septum directly backwards about three lines, and then making a gradual curve with my knife, I cut downwards about eight lines towards the end of the nose. The intercepted portion of cartilage could now be easily lifted with a probe, and the line of the ridge of the nose completely restored. It was at once apparent, also, that lifting the cartilage would depress the tip of the nose, and restore its symmetry.

To retain the cartilage in place, I constructed a gutta percha splint, of the length and shape of the nose, but so formed along its middle as that it would not press upon the cartilage which I had lifted, resting well upon the *ossa nasi*, but not touching the ridge from the lower ends of these bones to the tip of the nose, at which

latter point it again received support. I now passed a needle, armed with a stout ligature, through the upper end of the uplifted cartilage, transfixing, of course, the skin on both sides of the nose, and this I tied firmly over the splint. This accomplished the important object of pressing backwards and downwards the tip of the nose, and thus titting up the upper part of the ridge and septum, and of more effectually securing the cartilage in place by lifting it directly with the ligature. On the second day the ligature was removed, but the splint was continued two weeks, during most of which time a band was kept drawn across the lower end of the splint, and tied behind the neck.

To prevent the cartilage from falling back when final cicatrization occurred, I pressed the sides of the splint firmly towards each other, just below the incision, so as to force as much as possible the walls of the nares into the fissure in the septum, made by lifting it up.

The result is a complete and perfect restoration of the nose to its original form.

Report of the Committee on Surgery, made to the Ohio State Medical Society, at its session at Sandusky, in June, 1857. By JOHN DAWSON, M. D., Chairman.

The committee charged with the duty of making the Annual Report on Surgery, have felt some embarrassment in the selection of a subject. The department is so extensive, and all the subjects of which it is composed being nearly of equal interest, it has seemed almost like invidiousness to attempt to make a choice.

We might, perhaps, have occupied our time acceptably by reviewing or looking into some *speciality*, some particular operation or proceeding, its merits, demerits, etc., and enough could here have been found to occupy volumes rather than reports; or we might have detailed a lot of cases operated on, by some particular method, with results; or we might have made a single operation, by ourselves or our neighbors, the basis of remarks enough to occupy the pages of an ordinary sized report; or we might have called attention to the increasing frequency of certain kinds of surgery, or rather to a new class of injuries, from railroads, machinery, and other things of the kind; or we might have taken up some *new* operation, or new method, the first of the kind which has been performed; and if it had

proved unsuccessful, have shown how ignorant the surgeon was who undertook it ; or if successful, have become eloquent on the progress of surgery, exhausting the resources of rhetoric on the operator as being learned, intrepid and able ; or we might have alluded to the comparative popularity of surgery in the nineteenth century, and the frequency with which exceptions are taken to the manner in which it is practised. Any of these, indeed, would have furnished more than a sufficiency for the occasion, while the most of them contain more than we could have found time to present.

Our notion, however, is to occupy a little space in a very brief *review of the present doctrines, and what is regarded as present knowledge, in surgical science*. For this purpose we will arrange our remarks under the following heads :

1.—*The Age of Scientific Surgery.*

2.—*The Mechanical, or Operative Department of Surgery.*

3.—*The Scientific, or Pathological Department.*

4.—*What per centum of success justifies a surgical operation.*

We by no means expect to exhaust what is contained under each one of these heads, but merely wish to use them for the discussion of points which we think entitled just now to special consideration. The age of surgery is a matter that is not easily estimated, if in trying to do so, we take into consideration all the time within which procedures of some kind or other, and after some fashion or other have taken place. Surgical operations of several kinds extend back to the commencement of the historic period. They are as old as accidents and injuries, and an account of them makes up a part of the first literary efforts of our race. The *Iliad* has immortalized the names of Podalirius and Machaon for their services in the Trojan war ; and the most ancient literature is interspersed here and there with details of different kinds of surgical efforts. Nor is history barren in its account of very ancient efforts, undertaken for the relief of some of the gravest forms of accident and disease. Before the Christian era 400 years, Lithotomy was practised. Operations for stone preceded Hippocrates ; and, although this author never himself performed this operation, his recommendation of incisions to extract calculi from the kidney, his performance of amputations, his trepaning, his treatment of fractures and dislocations, his use of the obstetrical forceps, and his maxim, “when medicine fails recourse should be had to the knife, and when the knife is unsuccessful, to fire,” go to show the date of his practice and the character of the operations compassed by his genius.

Herophilus was in the habit, in scinhsities and tumors of the liver and of the spleen, of cutting through the parietes of the abdomen, and applying medicines to those organs. We attempt, indeed, scarcely anything in modern times, in which we have not been, to a greater or less extent, anticipated by the ancients. On the ruined walls of the renowned temples of ancient Thebes, basso-relievos have been found, displaying surgical operations and instruments not very different from those in use in modern times. The *Dilator* or speculum of modern times, has its exact prototype, it is said, in one now in the museum of Naples, obtained from the ruins of Pompeii, (Dr. Johnson.) The Alexandrian surgeons exhibited ingenuity in many things. Ammonius invented an instrument and used it for breaking down stone in the bladder, thus anticipating completely Civiale, whose invention it was thought added a wreath to the crown of French surgery. Really the surgeons of the Alexandrian school excelled in some things. They were distinguished for the nicety of their dressings, and also in the use of bandages. *Ægenita*, having satisfied himself of the situation of stone by the rectum, made his incision, not in the centre of the perineum, as recommended by Celsus, but to one side of the raphe, as is the practice of the present day. He also inculcated the propriety of making in lithotomy the smallest possible opening in the bladder, an important thought of modern times.

We might in this connection allude to the invention of instruments and the performance of operations by the ancients more in detail, and associate each, with its date and name of surgeon, but our purpose is served, in merely directing attention here, as useful in correcting our propensity to claim things, with which the public are not familiar, or that happen to have a new appearance, as being original with us. These examples, however, are very far from proving that surgery, as a science, had an existence at the different periods to which we have alluded. The very reverse is nearer the truth. Its foundation, Anatomy, was not cultivated at all until long after the death of Hippocrates, and then but for a short time at a single school, (Alexandria.) Not only was it not cultivated for much the largest portion of Christian history, but dissections were with great zeal prohibited. Then again, what there was of surgery at a very early day fell into the hands of a very low and superstitious class, who persisted in the possession of the most important operations until a comparatively recent period. This class of individuals were the only ones that performed lithotomy in the days of Hippocrates. They retained exclusive pos-

session of the operation also at the period of the Alexandrian school, and for centuries afterwards. Hippocrates never, as we have seen, operated for stone; neither did any of the professors of Alexandria, nor any one else of any reputation for a thousand years after the operation had been inaugurated. Celsus describes a mode of operation, "*cutting on the gripe*," though there is no evidence that this accomplished Roman ever himself practiced surgery. Rome had no practitioners of surgery for a period of 600 years after the empire was founded; and when Archagathus, from Alexandria, went thither, and ventured on that people some of the operations with which he had made himself acquainted, his title was changed from surgeon to that of "*executioner*," and he was banished from the capital. So low really was surgery at one time that it was prohibited by edicts of the highest authority, and denounced by a certain council of savans as being derogatory to the dignity of the priesthood, and beneath the attention of all men of learning. Thus circumstanced and degraded without any fixed or established principles that might serve as a nucleus for the building up of a science, surgery continued for a period of more than 2,000 years. Occasional attempts were made to raise it from its low position, but it was not until during the fifteenth century, when the art of printing was introduced, that anything worthy of note was accomplished. Ambrose Pare, of France, and Wiseman, of England, first successfully rescued the department from the hands of barbers, farriers and magicians, and, by directing investigation rightly, succeeded in securing for it attention from men of sense, and something of public patronage. About the same time Vesalius, Fallopius, Eustachius lived, and by their anatomical researches contributed to the introduction of the new era. The commencement of this era dates back only about 300 years. Scientific surgery is, therefore, about 300 years old, a period of time but little more than the aggregate longevity of six medical men.

The Mechanical Department of Surgery.—Lately, no less than in former times, volumes have been written describing the methods only of performing surgical operations. And the American Medical Association, at its meeting last year, appointed a special committee to make a report on this department. Always it has maintained a character for attraction, and many minds have been with it entirely engrossed. Everything in regard to results was in early times mostly supposed to be due to the secret skill or facility with which operations were performed. Confined almost entirely, for twenty centuries, to a class

of ignorant men, nothing but the mere work of the hands, the literal signification of the term, *chirurgery*, received any attention. This was strikingly instanced in the persecution and banishment of those who practiced the art when success did not happen to follow their efforts. The truth of the remark may also be recognized in the circumstance that the priests were forbidden to practice surgical operations of any kind. The Council of Tours supposed that but little else was involved in surgical operations than filthy work with the hands. The same sentiment was prominent in the Arabic mind during the time that race had exclusive charge of the science of medicine. Their surgeons exhausted their efforts in complicated apparatus, in the construction of instruments, and in the methods of operation.

Then, again, how are we otherwise to explain the universal tendency, with but here and there an exception, of those who practiced the important branches of surgery, to keep their methods of operation a secret. This, as before remarked, was not only done with great care and pertinacity, but continued in force as a practice until the seventeenth century. It is seen in the example of Ruysch, who carried with him to his grave the secret of his admirable injections; in that of Roonhuysen, who made a secret of his lever, the only substitute then known for forceps in difficult labor; and in that of Raw, who cut successfully fifteen hundred patients for stone, and kept his method of operation such a profound secret that even his own pupils published different accounts of it, after his death.

Such examples prove several things,—but they set forth, very prominently, the fact that surgery was regarded as a mere mechanical procedure, involving only mechanical ideas—something with which reason and philosophy should have nothing to do.

In taking a view of surgery from another angle, it will be noticed that the operative department failed to engross the attention of any medical man of ancient times, who was possessed of genius, or had a foretaste of the true philosophy. Hippocrates spent the force of his great endowments on medicines and acute diseases. He was but partially interested with surgery, and perhaps did no more in this line than he was compelled to do by circumstances. Celsus, the cotemporary of Cicero, and whose labors the latter so fully appreciated as to give birth to the sentiment, “*Nothing so nearly approaches the character of the gods as giving health to our fellow men,*” was no surgeon. He, as already noticed, described operations, but there is no evidence that he ever performed one. Galen, who, after the lapse

of one hundred and fifty years from Celsus, succeeded to public favor, and who held dominion over both surgery and medicine for thirteen hundred years, unfortunately lived in the anti-anatomical period of Rome, when a science, the indispensable pre-requisite to surgery, could not be studied. He felicitates himself, for example, on the opportunities he had enjoyed, of having examined two skeletons at Alexandria. He dissected inferior animals, monkeys, and performed phlebotomy; but his practice in Rome was almost entirely confined to medicine. Oribaseus wrote on surgery, but he was not interested with it, and discouraged it except in very extreme cases. Paulus Aegineta did perhaps more for surgery, scientifically, than any of his predecessors; yet his frequent use of fomentations, ointments, plasters, and his love of bandages and complicated machinery in fractures and dislocations, show the dominancy of mechanics in all his efforts. Really, we find no mind, of an order commensurate with the importance of this subject, wholly engrossed in its cultivation—touching the springs that vibrate to the most valuable results—until the times of Pare, Petit, Wiseman, Pott and John Hunter.

Survey past history *by periods of time*, and still we fail to see an adequate appropriation of mind to the emergencies and important questions connected with surgery. From the commencement of the historic period to the Trojan war, 1184 years before Christ, the practice of surgery was limited to the suggestions of *instinct*; and mythology was its only exponent. For more than thirteen hundred years after the above period, which embraces the doings of the Asclepiades, of Hippocrates and Galen, anatomy was not studied as a pre-requisite of surgery, but the operations were confined mostly to those who professed intuitive knowledge, or were governed by the gods. Cato, for example, during this period, wrote down the words of incantation for curing, dislocations and fractures. The period just referred to, which comes up to the end of the second century of the Christian era, was marked, as all know, by some of the best efforts of which the human hand and mind have ever shown themselves capable. Unfortunately, however, scientific surgery came in for but a share of these. Ignorance of organization, pretended horror of blood, and false veneration of the human body, were sufficient to direct attention almost entirely from the subject. Neither Greece nor Rome furnished an example of the genus homo who successfully gave to his age operative surgery in its true light—an art depending for its success upon the strictest and most enlarged cultivation of obser-

vation and experience. It was not until medicine left the classic shores of Italy and Greece, and took up its abode the second time in Egypt, that Anatomy, for but a short period, was cultivated in connection with surgery. The age of *transition* (Renoard) if it might be so termed, commencing with the death of Galen and extending to the fourteenth century, a period of more than a thousand years, includes the agency of the Arabs—their efforts at improving medical science. Uncultivated, and without any previous knowledge of the subject, the Arabs approached it *de novo*. The Greeks, from whom so-much ought to have been expected, exhausted themselves in endless controversies, imbibed, as it were, the contagion of the argumentative and sophistical mania. The Romans had demonstrated themselves, in burning up the Alexandrian Library, and, as a consequence, no better fortune awaited medicine than to be transferred to the hands of a people, not, by either habits of culture or natural endowments, fitted to receive it. After having, however, become conscious of the responsibilities resting upon them, the Arabs doffed their vandalism for the time, and commenced gathering together the debris of the Greek and Roman authors. They added some things, and many they lost. They were the first who distinguished eruptive fevers; they enlarged the boundaries of therapeutics; created chemistry and pharmacy; were among the first to establish hospitals; they separated medicine from surgery, and secured for physic the patronage and protection of their governors. They lost anatomy, not being allowed by the Mahometan religion to dissect; knew nothing of it except what they got by translating the writings of Galen. They abandoned many of the operations in surgery in use among the Greeks. They invented a great number of instruments, apparatus, &c., and seemed to calculate the efficacy of surgery by the richness of its arsenals, and the amount of pain inflicted by their operations. In order to stop hemorrhage, after amputations, they plunged the stump into boiling pitch. The Arabs improved surgery in nothing, scarcely, but its mechanics. The last and most learned of their authors, Albucasis, who lived in the twelfth century, wrote for his day an abridgement of the “Theory and Practice of Medicine,” and appended to it a supplement on surgery, which consists of a description of the instruments then employed in surgical operations, with explanatory figures. His mind, to some extent, appeared to be occupied with *operative* surgery. “I have,” he remarks, “undertaken this little treatise for the purpose of reviving this most useful branch of our art. I have detailed briefly

the methods of operating ; I have described all the necessary instruments, and I present their forms by means of drawings ; in a word, I have omitted nothing of what can shed light on the practice." Thus ends operative surgery among the Arabs.

In time there issues from the deserts of Tartary the present race of Turks, more barbarous than the Arabs. The latter were subjugated by them in many parts of the world ; their civilization destroyed ; their schools of medicine broken up ; and, in the general wreck, the little that there was of medicine and surgery sank beneath the destroying wave—the head of physic emphatically went under, where it remained for several centuries.

The darkness and gloom which followed the subjugation of the Arabs by the Turks, continued with but little abatement to the close of the fourteenth century. The dominant Turk, showed neither disposition or ability, in his new relation, to compensate by improvement of any kind for the destruction he had caused. He came not to the temple of *Æsculapius* to offer penitence, much less contribution, for the wrongs he had inflicted on the world, by destroying the only nation at the time engaged in attempts at medical or other scientific pursuits.

The mind of Europe, although long anæsthetic, began to show signs of waking again into the vigor of life. In the fifteenth century evidence began to appear that the spell was about to pass off, and that the people who had formerly shown themselves incompetent to give medicine a respectable foothold among them, were at last about to be its only hope. From the east the star of medicine was about to disappear. Asia wanted it no longer ; and to occidental Europe—to the west—it gradually wended its way. It first neared the shores of Greece, but no one stood there as formerly to give a welcome signal. Its genial soft light had been forgotten, never to be remembered by that people more. Approaching Italy, Beneveni and Vesalius, the latter of whom gave birth to anatomy and made it a fixture, received it cordially. Holland, in the persons of Ruysch, Raw and Camper, did the same thing. Flashing an occasional ray still farther west, France and England felt that a worthy visitor was in their vicinity, and deputed Pitard* Pare, upon the part of the former, and Arden and Wiseman on the part of the latter, to conduct ceremonies of invitation. Europe then, as if new blood had begun to circulate in her veins, or new faculties had been acquired, became conscious of her

*Pitard founded the College of Surgeons, in Paris in 1271.

vocation, and appropriated, as Greece had formerly done, some of the best of her spirits to hold communion with the genius that had been welcomed to her soil. The birth of a new era was the consequence. Medicine now became linked with the progress of the physical sciences, and with them, *pari passu*, it has since progressed. The antique debris of all cultivators was collected, more exact and thorough modes of inquiry instituted, and a sound philosophy at last was adopted.

It would be too much to expect immediately, from this change in the aspect of things, the full amount of treasure—the perfection of the calling. Such could not be true with reference to any human pursuit.

In resuming our vein of inquiry, we find that *operative surgery* shared somewhat of the general good. The new era shows it to have left the hands of the ignorant, the incompetent, and to have advanced beyond the bounds of incantation and mechanics. Every generation comes a little nearer to the truth; and we may now confidently calculate, that the time is not far when our views with reference to the true position and value of operative surgery will be more matured.

We will now proceed to our next head :

Pathological or Philosophical Department of Surgery.—There is perhaps no operation, however simple, but what may be influenced, modified or rendered useless by the presence in the system, for example, of the strumous, the arthritic, rheumatic, lymphatic, hæmic, tubercular or cancerous diathesis. The study of these states, as a consequence, must take precedence of the operative department. It matters not how well or seasonably an operation is performed, unless it be done in the light of all the morbid conditions preceding it, and present at the time,—not only no good will be accomplished, but the reputation of the surgeon may be unfavorably affected, and, what is worse still, the patient's days, instead of being lengthened and rendered more comfortable, may become shortened.

To the states of the system above noticed we apply, for the want of a better name, the term *cachexia*. Although by no means comprehended in their early stages, the *cachexia* nevertheless, in the deterioration which they occasion in their progress, are apt to be, sooner or later, pretty well pronounced. There is, indeed, often a “cropping out” that serves as an index to the peculiar character or phase of the

morbid action. Besides these more obvious demonstrations of the presence of causes which qualify the character of remedial efforts, others exist often as the consequence of a poison—a *materies morbi*, introduced into the system, the presence of which is, *a priori*, not easily ascertained, but which is nevertheless potent in the matter of results.

From Hippocrates to Galen, from Galen to Cheselden, and from Cheselden to Physic, we have had diverse and contradictory opinions expressed, with reference to the propriety of operations for *cancer*. The sage of Cos led off against the measure, but others came after him who professed to have received new light, to have made the discovery that the disease may once in a while be cured by the arts of the surgeon. As examples of the latter class, it is not necessary to refer to the ancients, many of whom were very positive in their opinions, but to authors of modern date, among whom may be mentioned Hill of Scotland, Noot of England, and Flajani of Italy. What now is the point of most interest here? For it may be premised as a fact, that a matter so fertile in opinions contains something that is either not well understood, or is, in itself, ambiguous. It would seem that several very difficult, though to appearances plain questions are involved. Does a cancerous cachexy always have fatal issue? Or has the cachexy degrees or stages, some of which are more than others amenable to treatment? Or is the complaint modified by temperament, age, sex, locality, and the like, so as to affect the question of operation? Or, finally, are we possessed of any means by which to make out a correct diagnosis? The opinion is now general, I might say universal, that *cancer*, when well pronounced, is incurable, whether in the form of scirrhus, the encephaloid fungus hæmatodes or colloid cancer. And as a consequence, premises might here be formed, founded upon this sentiment, against any operations undertaken for the purposes of cure. But another question springs up; are there not stages in the dyscrasy where remedial efforts may be interposed with reasonable probability of success, or rather for interrupting the cause of the alteration? May not carcinoma, while in the form of a mere schirrus, or an encephaloid tumor, when first developed, be extirpated? The practice of surgeons answers in the affirmative, and it is astonishing to see how general this is; while reason and philosophy answer in the negative. The dyscrasy when once set up, unless the best experience is at fault, is persistent, uncontrollable, tending to a certain result; and whether regarded as due to the presence of a *materies morbi*, or as a degeneration of normal tissues, the destructive march is none the

less certain; downward according to all observation is its tendency. Tuberculosis, diabetes mellites, hydrophobia and tetanus, have each a character for uniformity in fatal results; but it is very doubtful whether either of these stands higher in this respect than the disease before us.

An excuse for the course that surgeons generally pursue with reference to cancer may be sought for, not, as we apprehend, in diversity of opinion about the general tendency of cancerous growths, but in the fact that our diagnosis is necessarily very imperfect. The crude terms "*malignant*" and "*non malignant*," or "*analogous*" and "*heterologous*," as applied to tumors or morbid growths, have their counterpart too often in the surgeon's mind. The term *malignant* expresses merely a result; while *heterologous* implies only the presence of foreign matter in the tumor. It might be supposed that we could get something more definite from Chemistry and the Microscope; but the light by those agencies is by no means satisfactory. Chemistry tells us that the proximate animal principles found in tumors vary very much. While cancerous growths pretty uniformly consist of albumen, and the non-malignant of fat and gelatine; yet albumen is sometimes a constituent of non-malignant, and gelatine pretty constantly a constituent of the colloid or areolar form of cancer. The microscopical characters of cancer are not more conclusive. At one time it was thought the *cancer cells* had a particular form, the "*caudate*;" and that there were also characters in the "*juice*" diagnostically significant. These conclusions were premature, and confirm a maxim of microscopy, viz: that five years should elapse after making a discovery before publishing it. The *cancer cell* differs not in form from cells formed in growths connected with other diseases, or indeed from those occasionally found in normal tissues. This is the experience of microscopists generally; and if the statement were worth anything, we would add that it is also our own experience. Cancerous growths abound in cells, and where the formation is rapid, as is the case with several forms of the disease, the cells are very abundant, and present a high degree of development, containing nuclei and neucleoli in numbers more than normal. We have therefore to seek for the characters of malignant formations, not in any particular cell or element, as contended for a short time since by Lebert and others; but if we would heed the microscope, in the abundance and high development of cells, and their presence in parts where no cells naturally exist, etc. Now it is even easy

to see how fallacious such a guide must be when practically applied. All new growth of the *analogous* kind, if our ideas of development are not too much at fault, have their origin in a cell structure, when occurring in connection with tissues of any character; and accordingly it can only be after a growth has matured, so as to present a contrast in structure with its surroundings, that this test can be of any service. Then, again, occurring on mucous or serous surfaces, which is the seat of the form of cancer denominated *villous*, and where cell structure is maintained as the normal element, this cell test would seem to lose its force altogether. Analogous and heterologous growths here seem to fuse, so far as cell distinctions are concerned, and hence it may be presumed that when such are removed successfully by the surgeon, that is do not return after removal, they are not cancerous but cancrioid. It has been, doubtless, from the removal of tumors of this character, where the essential constitutional elements of cancer were absent, that consistency has been given to operations.

The "*cancer juice*" is often alluded to as an element of diagnosis; and is regarded by some as very characteristic. Upon what such statements are predicated it is hard to discern. This juice is amorphous, as we understand it, except when it contains the granules and cells of the part from which it has been squeezed. It is viscid, whitish, or yellowish, though these are characters common to other morbid fluids, and as a consequence in themselves worth nothing.

The *stroma* of a cancerous tumor imports something more in the way of characteristics. The stroma seems to consist of fibres, in the meshes of which are deposited the *materies morbi*, in the form of cells, and it appears that it is by the increase of these cells more than anything else the disease advances. The presence, then, of a great collection of cells, and in a part where they do not naturally exist, or in other words, an "*error loci*" of cells, is, to say the least, a suspicious circumstance, and is, perhaps, of more consequence in diagnosis than any of the points, or all of them put together, to which we have alluded.

The cancer *dyscrasy*, although in the commencement often occult, attains to a condition, sooner or later, when it gives out phenomena symptomological, which, taken in connection with other circumstances, perhaps serve the surgeon most faithfully. The importance of the pathological department of surgery is merely exemplified, but by no means exhausted with cancer.

We propose now to review some of the leading surgical procedures, in, however, but a few of their aspects, for the purpose of seeing whether the contingences, results, etc., connected with them are rightly regarded. And we may say in advance, that the limits of this paper will allow of but a glance, and that, too, only at some of the more important operations. We will begin with the

PROGNOSIS OF AMPUTATIONS.—There is something in amputations that needs fuller elaboration. The pathological conditions, for which amputations are proposed and practised, are far from being comprehended. From ignorance, or rather want of information here, false expectations have been inspired. Benj. Bell, for example, says in his general remarks on amputations, that he believes that not one death will happen in twenty cases of amputations, including hospital and private practice. Inman collected 3586 cases of amputations, and Fenwick 4837. Out of all these, the operation was fatal in about one in three. The statistics of later surgeons go to confirm the truth of these results in regard to amputations in general. Syme and Ferguson, two of our leading surgeons of the present day, have expressed opinions on the good success following amputations at the *hip joint*. Cox, however, collected 84 cases in which amputation at the hip joint had been performed, and from these it was found that the *recoveries* were less than one in three of those operated on. In regard to the *major amputations* of the limbs, amputation of the thigh, leg and arm, the statistics by Malgaigne, from the Paris hospitals, by Lawrie, from the Glasgow hospital, by Simpson, from the British hospitals, and Phillips' collection, show a fatality in the proportion of about one in every two and a half operated upon. That is, in every *two and a half* of amputations of the superior and inferior extremities, there was *one death*. Results something like these were given to the Royal Medico Chirurgical Society in a paper read before that body, by Benjamin Phillips, in 1837. The paper having been founded on what was thought to be too limited a number of operations, the publishing committee of the society called in question the correctness of the conclusions, which were, that in 100 operations there were 23 deaths, and refused to publish it. Mr. Phillips was also requested to investigate the subject more fully before publishing any observations. Statistics were then collected from hospitals and private practice in different countries, all of which not only confirmed what had been said before the society, but showed that the estimate of 23 per cent. of mortality in amputations of the

arm, leg and thigh, was much too low, and that, as already noticed, truth makes it *one in every two and a half* operated upon.

PROGNOSIS OF HERNIA.—Have our views of the amount of disease usually associated with strangulated hernia been entirely faultless? Pott taught the doctrine, that in cases operated upon sufficiently early, and with the due amount of care, there is scarcely any danger at all; not more, he says, than one in fifty cases die. Late researches, however, go to establish very different conclusions. Out of an extensive collection of operations, performed by a full average of competency, and under the ordinary circumstances in which the accident makes its appearance, it is ascertained that one in every two, or two and a half subjected to the operation, perishes. Of 77 cases recorded by Sir Astley Cooper, 37 died; and of the 183 collected by Malgaigne, 114 died.

PROGNOSIS OF LITHOTOMY.—Statistics have been published of late, going to show the results of operations for stone in the bladder. In regard to this operation, so formidable in appearance, much diversity of opinion has prevailed. As performed by some of our American surgeons, the prognosis has seemed very favorable. The reported success of several surgeons has astonished other surgeons throughout the world. Cheselden was the first to tabulate the results of cases of Lithotomy. He operated on 213 cases at St. Thomas' Hospital, with a mortality of about one in ten and a half. Coulson has a table of 6,369 cases, which shows a result of one death in six and five eighth cases. Civiale has constructed a table of 2368 operations, exclusively French; the result is one death in five and three-quarter cases. Gross has a table comprising the operations of American surgeons alone, in all 895 cases, in which the deaths are only one in twenty and a half. It is said that out of 180 cases cut, up to the beginning of 1846, by Dr. Dudley, of Lexington, Kentucky, but five deaths occurred. Mettauer, of Virginia, cut 73 cases; two deaths. Warren, of Boston, 30 cases, 2 deaths. Gibson, of Philadelphia, 50 cases, 6 deaths. In the Pennsylvania Hospital, between 1752 and 1848, 83 cases were operated on. Of this number 72 were cured, 10 died, and one was regarded as relieved. Inman, who has done so much in the way of statistics, found that of the 5,900 cases which he collected, 765 died, or one in seven and three-quarters. Dupuytren collected 356 cases operated on in Paris; the mortality in these equalled one in six. Willis, from all the statistics accessible throughout the world, embracing subjects of all ages

and different plans of operation, concludes that the general average of mortality in Lithotomy is about one in eight.

PROGNOSIS OF OPERATIONS IN OVARIAN DISEASE.—We have had much written of late years on the *history* and *statistics* of ovariectomy. While something similar to ovariectomy was practised by the ancient Jews, who were in the habit of qualifying their unfortunate females for the duties of eunuchs, by removing the ovaries, a practice that is still continued in certain parts of India; and, while the subject of ovarian disease was thoroughly discussed in the early part of the eighteenth century, by Morgagni, Payer, De Haen, Targaoni and Lieutaud, it may with propriety be assumed, that the operation only became established during the early part of the present century. The first names connected with it in modern times, are those of L'Almonier, Houston, McDowel, of Kentucky, and Lizars, of Scotland. Of 300 cases now tabulated, in which operations have been attempted for the removal of the ovarian tumor, 119 only have been successful in the removal of the disease and recovery of the patient; or 39.66 to 100, or a little less than two in five. That is, in every five operated upon, two have been successful. This, strange as it may strike us, it will be seen, is similar to the ratio of recoveries, all causes included, of amputations of the thigh.

PROGNOSIS OF FRACTURES.—Allied to the same inquiry is the prognosis of fractures—the per centage of mischief occasioned to the organism by the fracturing of bones. This subject has received little attention from any one of ancient or modern times. Deformities, shortening, etc., of course escaped the attention of no one who had any experience in surgery. Yet, strange as it may seem, only an occasional hint, or some accidental remark with reference to the subject, is the most that has been recorded. Hippocrates noticed that some degree of deformity accompanies the reunion of certain fractured bones; and it is to be presumed the same observation has been made by every surgeon down to the present time. But in this country, England and France, indeed, throughout Europe, nothing at all satisfactory is to be found. Our literature is not deficient, by any means, in statistics on the occurrence and treatment of fractures. In our own country we have the statistics published by Dr. Wallace, in 1839, which embraces an account of 1,800 fractures treated in the Pennsylvania Hospital. Norris, of the same institution, has also published an account of fractures. Piercon has given the profession an account, statistical, of the fractures in the Massa-

chusetts General Hospital up to the year 1840. Lente has done the same thing in the New York Hospital for twelve years preceding 1851. Statistics have also been furnished by Lonsdale, of the Middlesex Hospital, London, by Fricke, of the General Hospital at Hamburg. Upon these, tables have been constructed, to determine the average fatality of such accidents, the chances of cure, etc. No attempt, however, upon anything like an extensive collection of cases has been made, to show *what have been the usual results of fractures?* What proportion of all the cases treated has been dismissed "*perfect*;" what proportion has left the hands of surgeons "*imperfect*," with the bone shortened, bent, or otherwise deformed? When deformity has followed the treatment of a case of fracture, attention, if the trouble has occurred in the hands of an able surgeon or in the wards of a hospital, has been directed to an imagined or real imperfection in the fixtures used for retaining the fragments in place; and when it has happened in the hands of a practitioner of medicine, with an experience necessarily limited, the fault has generally been laid at the door of the practitioner, and he held responsible for consequences. The real questions—the amount of injury sustained, the prognosis in view of this, and the imperfect means in the hands of the profession to "restore order," impart primary symmetry—in short, to make a "*perfect cure*," have, by no means, received the consideration to which they are entitled. It would not, perhaps, be right to say that these important questions have been *ignored*; but it is right to say that they have been *neglected*.

An attempt has recently been made, to supply the deficiency to which we have alluded on the subject of fractures, by Prof. Hamilton, of Buffalo, New York. Prof. Hamilton's researches have been confined mostly to the *results of treatment*, not by those enjoying limited opportunities for skill, but the results of treatment by those having experience, those qualified to do all that can be done with present knowledge, and surrounded with an average of circumstances. The inquiry, as far as it has extended, has thrown to the surface some very important facts. Of the treatment of fractures generally, "*imperfection*," in the form of shortened limbs, crooked bones or other deformities, appears to be "*the rule*;" and "*perfect cures*" the exception. Future researches in the same line may vary the proportions relatively, with regard either to special bones or to those of the entire skeleton subject to fracture; but we have no idea that the general law set forth by the researches of Prof. H. will ever be changed. It is a philosophical truth, that all the frac-

tures ever connected with humanity, if tabulated, would most likely confirm.

The profession are indebted to Prof. H. for his labors in this field; and we hope that he may feel the necessary interest to continue them still further.

Prognosis of Cataract.—The following are some statistics in regard to the prognosis of cataract, from a systematic treatise on ophthalmic surgery, (Mackenzie.)

In 330 operations by extraction and displacement, about two in three were successful. Besides Mackenzie's statistics, we find in the *Annales d' Oculistique* the results of M. Sichel's operations for cataract. From 1846 to 1854, a period of nine years, M. Sichel operated 1026 times in 641 individuals. He operated by the three methods, *extraction, division and depression*, with the following results: successful cases, 783; partial success and failures, 231. This gives a proportion of success equal to about 73 per cent., or out of every four cases operated on, nearly three were successful.

Such is a specimen of the data upon which to found a prognosis of the cure of cataract by an operation.

Tartra adds to his statistics his opinion, that *two* out of *five* patients operated on for cataract recover sight.

Roux's success at the *Charité* was somewhat more than *five* out of *eight* cases operated on.

Where the cases are well selected, and those for extraction and those for displacement are rightly distinguished, Mackenzie thinks three-fourths recover useful vision, two-thirds excellent vision.*

Prognosis of Diseases requiring Bronchotomy.—Important as is the operation of Bronchotomy, for the removal of foreign bodies from the air passages, and for the relief of approaching asphyxia from inflammation, false membrane, etc., no data have been collected sufficient to indicate the mortality connected with the operation. The value, indeed, of the operation was not put to the test, in cases of *croup*, for many years after it was advocated on theoretical grounds by Dr. Home; and it is as late as 1762 that it was first successfully performed by Mr. Andre, of London, on a little girl five years old. The cases, as far as we know, that have been tabulated, have occurred mostly in France. M. Valleix gives fifty-four cases of membranous croup in which the operation was performed. At the *Hospital des Enfants Malades*, within the last five years, the operation has been

performed 215 times. Results—168 deaths, 47 recoveries; or in the proportion of one recovery to about four operations.

In attempting a general review of the different surgical procedures to which we have alluded, among other things it may be remarked, that there seems, at first view, quite a similarity, in the way of results, between operations of very different nature, and undertaken for quite different purposes. Previously it has been shown that the Major Amputations, amputations of the arm, leg and thigh, included together, are fatal in the ratio of one to every two and a half, or at most to every three operated on. About the same mortality attends the operations for strangulated hernia, it being in the proportion of one in two, or two and a half. The failures in cataract are in the proportion of about one in three for useful vision. Ligation of the carotid has been performed over two hundred times, and may be classed here; it fails to be of service in the proportion of one to three or four.

Again, Ovariectomy, Bronchotomy, Amputations of the thigh, and Fractures seem to class themselves together. They all agree in the general law—*want of success in more than one-half the whole number of cases operated on*. In Ovariectomy, as we have seen, the surgeon succeeds in one case in every two and a half operated on; in Bronchotomy (operations on the larynx and trachea) he succeeds in one case in every four; in amputations of the thigh, including operations at the acetabulum and on the shaft of the bone, in one case out of every four. In fractures, the data are not yet collected to warrant anything, except that *imperfection* is the general law. Prof. Hamilton's "Fracture Tables" show that in fractures of the tibia and fibula (compound and simple), perfect results are in the proportion only of one to about three of the cases treated; in fractures of the femur and clavicle, perfect results in about one in five; in fractures of the patella, perfect results in one in six. We should not wonder if these figures prove to be an approach to truth. They sound very much like it.

Formidable as is Lithotomy, its success, as performed by all operators, on subjects of all ages, contrasts very strongly with either of the classes to which we have alluded, the mortality being here in the proportion only of one in eight of the cases operated on. With regard to cancer, no law has been evolved. Rhazes, the first distinguished Arabian surgeon, who flourished in the tenth century, first opposed the use of the knife in cancer, except when the disease was

local—a circumstance that perhaps never occurs. The experience of eight centuries has had the effect only to confirm the correctness of this position.

The apparent superior success of American surgery, in several operations, is a matter also developed by the statistics before us. In cataract, American surgery reports three cases out of four as being successful. Our trans-Atlantic brethren report but two out of three. Still more striking is the difference in Lithotomy. The mortality of Lithotomy in this country, as we have seen, is only one in twenty and a half of the cases subjected to operation; in all other portions of the world, from which statistics have been obtained, the mortality is one in eight—more than double what we have here. If we were to notice the operations of certain individuals, the disparity would be still more striking. Dudley, of Kentucky, operated on 180 cases with but five deaths, or one death in 36 cases; Mettauer, of Virginia, in 73 cases, two deaths—a success greater than that of Dudley; Gross has operated 24 times, every case successful.

How is this uncommon success to be accounted for? Have we more operative skill in America than elsewhere? Or are the circumstances with which patients are surrounded, both before and after operations, better here than in the old world? Or are the cases which have been tabulated in this country, sufficient in number to reveal the true law of mortality. We are willing to concede great skill to American surgeons; but it would not only be illiberal, but unjust, to deny this to those of other countries, and especially to those of countries where opportunity for excellence and proficiency is much greater than it is here. There may be something in the circumstances surrounding patients which has favored American surgery. Dudley's patients, and this is true also of those of Gross and Mettauer, were drawn chiefly from the population of the Western States, and after the operations, most likely, were furnished with comfortable quarters in towns, villages, etc., where the air and other things were favorable to recovery. The patients of other surgeons as a general rule, being drawn from populations much more dense, and as a consequence with less stamina of constitution, have, after operations, been mostly confined in hospitals, where they were exposed to a diversity of causes adequate to change results. This view is somewhat strengthened by the circumstance that Lithotomy, as performed in this country, in the large cities, on the Atlantic side of the Allegheny mountains, has been attended with much less success

than in other regions. In the Pennsylvania Hospital, where there were eighty-three operations, the mortality, as before noticed, was a little less than one in eight. Gibson operated on fifty patients, and had six deaths, or one in a little more than eight.

Perhaps, after all, the true explanation of our alleged success in Lithotomy will be found to consist in the circumstance that the operations have not yet been sufficiently numerous to present a fair average of results. It will be noticed that in America our statistics have only been sufficient to tabulate results of 895 cases. Besides, quite a number of gentlemen who have operated, some pretty extensively, have not yet placed the results of their labors on record. What effect these unrecorded cases may have, when tabulated with those already before the profession, remains to be seen.

What number of operations in any department of surgery, supposing them to be performed with ordinary skill, or, *ceteris paribus*, alike, is necessary to reveal the true law of *average results*, has not, so far as we are acquainted, been ascertained. A surgeon may operate a few times for stone, for hernia, or do amputations, and the success may conform to the true law. On the other hand a large number, comparatively speaking, of operations may vary very much in both ways from the law. Syme, for example, operated in fourteen cases of Lithotomy. Out of this number five died, or one in two and four-fifths. The same surgeon operated afterwards in 17 cases, with only two deaths, or one in eight and a half. Martineau publishes 74 cases in which he performed the operation of Lithotomy at the Norwich Hospital; only two of these 74 cases died, or one in thirty-seven. The same surgeon operated in seventy-three additional cases in the same hospital; out of these fifteen died, or one in four and nine-tenths. Now throwing all of Martineau's operations together, 147 in number, we have a mortality of one in eight, which is about what is common, as we have seen, in Lithotomy. Dudley's 180 cases show no approximation to the law of mortality, being in the proportion of only one death in 36 operations. Perhaps if the same surgeon should operate in 180 cases more, or in three or four times this number, the results would be so far below the success of his reported cases as to exhibit the average mortality of the operation. Gross, who has operated 24 times successfully in succession, might lose every other case in the next 24 operations; or a loss of three cases in succession, would reduce his results to the common standard, a circumstance that has occurred to other good surgeons. "Take

care," says Sir Astley Cooper, "how you draw any practical deductions from particular cases. I, and many others, have for a considerable length of time met with extraordinary success in operating for stone, when four or five unsuccessful cases in succession have come, which have generally brought down the result to the amount I mentioned, viz: that two in fifteen die."

We have had, as already noticed, 895 cases of lithotomy tabulated, with a mortality of one in twenty operations. This success, then, implies so much that cannot be reasonably explained by operative skill, superior methods of operation, or stamina of constitution on the part of patients, that we are left with but the alternative, viz: that we have not yet had a sufficient number of operations to develop the true results. The average mortality of the operation was not thought to be approached, until Inman had tabulated for Europe over 5,000 cases, and it is somewhat doubtful whether this number is sufficient. It would be better to have 10,000, or even 20,000. Indeed, the greater the number the more valuable the deductions.

In coming to the conclusion that the success of American surgery, as set forth by the operation of Lithotomy, is explicable on the hypothesis to which we have referred, it is not necessary for us to state that we have had no disposition to detract from the reputation of our surgeons, or call in question the truth of results reported, not even those of the Mississippi valley, which show the greatest want of conformity to the law as revealed by statistics. But, on the contrary, while all are justly entitled to belief in the statements of what they have done, and while the utmost faith may be exercised in regard to their reports of cases, it may be submitted that a fallacy of prognosis is here involved, that cannot be otherwise than detrimental to the profession, and detrimental even to operators themselves. A loss of but one in twenty, in Lithotomy, shows a success in the operation that is not true as a rule, and consequently calculated to mislead, to inspire false hopes. Great reputed success begets corresponding expectations, on the part of both surgeon and patient; and perhaps no one matter is prolific of deeper mischief to the profession. When Pott said that the operation for strangulated hernia, if applied in time seldom fails, so seldom that he believed not one in fifty dies with it, he gave utterance to an opinion that was not only not creditable to himself, but decidedly pernicious in its effects upon the progress of surgery. The same may be said of the opinions of Ormerod and Syme. The former has stated that amputation of the thigh *seldom*

fails ; the latter after amputating at the hip joint once successfully, states that this operation, if done quickly and properly, would be generally successful, if not uniformly so. Ferguson, in his work on surgery, has done equal injury by over-estimating the success of amputation at the hip joint. We repeat that such opinions, although expressed, in many instances, from convictions of their truth, and perhaps also of their utility, exercise no salutary influence, but the very reverse.

A further exemplification of what we have in this connection suggested, is seen in the expectations of the profession and of the people, in regard to *Fractures*. Adopting the principle that fractures, simple or compound, unless attended with very untoward circumstances, should get well without deformity, medical men have been as ready as any other class, to pass judgment against the attendant who has had the charge of a case followed by prominent imperfection. South, for example, of St. Thomas' Hospital, in a note to Chelius' surgery, says : " In simple fractures of the thigh bone, except with great obliquity, I have rarely found difficulty in retaining the broken ends in place, and in effecting the re-union without deformity, and with very little, and sometimes no shortening. For contrary results the medical attendant is mostly to be blamed, as they are usually consequent on his carelessness or ignorance."

Skey, the successor to Pott in St. Bartholomew's Hospital, says : " One is at a loss to find an apology for *those surgeons to whose want of care, and even of humanity*, may be attributed the numerous examples of distorted and contracted members, which have cast a reproach on the surgery of Great Britain."

We have adduced these instances, as examples of the creation of a very injurious fallacy, because, besides showing its prevalence, they also show the character of mind involved in the deception. It would be no trouble at all, to post up any quantity of reputed success and illiberal strictures, emanating from tyros and those who have had little or no experience ; but it does seem strange, that a matter of such vital importance, in every aspect in which it can be contemplated, should be so little understood by those who are at the head of the profession, and who are regarded as law-givers. The fallacy before us is a *non causa pro causa*—an assignation of a false cause. The want of success in fractures should not, as a rule, be laid at the door of the profession, and it should not be held responsible for failing to make a limb as good as it was, as perfect in every respect as

when it left the hands of the Creator : but, generally, it should be attributed to the accident itself, or to imperfect apparatus. These, if rightly looked into, will, in a great majority of cases, reveal the true cause of results.

In reflecting on the topics to which we have adverted, and the statistics passed again and again in review, it might occur to some that after all the truth is not yet developed.—that the statistical method of which we have made use in getting at results, is by no means conclusive—that there never were two cases, in surgery or medicine, exactly, in all respects, alike.

It may be true that we have not yet arrived at the whole truth, in regard to any of the surgical procedures to which we have referred. I presume we have not. It would be strange, where the questions are so complicated, requiring such a great length of time for solution, and involving so much of mental culture, if we had reached the *ne plus ultra* of the inquiry. The most that can be said perhaps, is that we are now on the right track, and everything combines to intimate, not only progress, but approximation to the truth. The method adopted, the statistical, is one of the most philosophical instruments of scientific research. It has been not inappropriately termed, the mathematics of medical science. It has been applied to many of the physical sciences, including Astronomy ; it has been brought to the solution of many of the problems of human life and social existence ; and in all instances has been characterized with effects that have commended it to the confidence of those who have a taste for accuracy. Applied to the solution of questions in medicine and surgery, it has been productive of consequences attainable, it seemed, in no other way. Individual and limited experience have been placed by it in the proper light before the profession, while from the observation of great numbers of cases properly tabulated, “true facts” have been elicited, rules set forth, that very likely will stand the test of all future research, and thus serve as so many points that are settled.

It is true that no two cases in either medicine or surgery are exactly alike. Each case has its individualities, certain phenomena that entitle it to the character of an identity. But it is equally true, also, that there are general phenomena, facts and events that are common to a great number of cases, and it is upon this universally acknowledged truth that classification in all departments of medicine

is founded. A classification is good or bad, according as it takes in perfect agreements, rather than resemblances and analogies. There can be no objection to the principle in question—there may be to its application. When a case of surgery is classed with other cases, for the purpose of serving as a basis of inference, it is because of the supposed *sameness* of most of its phenomena. The case, however, may be possessed of other phenomena, peculiarities we call them, which may not suit the classification. These, when rightly observed, although of less frequent occurrence, and perhaps more occult, must in time also necessarily yield their secrets to the potency of the statistical method of inquiry. The greater the number of cases that can be tabulated, the more accurate the inferences. Numbers, indeed, seem to compensate somewhat for the impossibility of calculating in regard to the influences of erratic phenomena; and it is a matter of astonishment how singularly effective the plan has proved itself to be.

Contemplated, then, as an instrument of research, the evidence furnished by statistics, when properly collected, is entitled to the highest credit.

If the facts which we have now thrown together, under the general head of surgical pathology, prognosis of operations, etc., have any practical bearing, this will be found to consist in drawing attention to the circumstance that we, as a nation, or as a generation of the nineteenth century, have placed the success of surgical operations very generally above the truth. Nor, as we have shown, have we been alone in this fault. We have inherited it from our fathers, and we have not only perpetuated it, but, by reason of the general swelling tendencies of our nature, have added to it—have made the fault fat. We have a notion that we are a great people, that our kind of civilization is the only one ever on the earth worth anything; that the spontaneous movement of an Anglo-Saxon is a nearer approach to perfection than cultivation can impart to any other race. To help us along in our feelings, we have our surroundings on an enlarged scale—high mountains, the broadest valleys, the widest prairies, and the longest rivers—minerals, money and grain beyond calculation. Such circumstances, or rather such possessions, could not very well be inoperative. They have not been in our case. Besides all other things, we have derived from them a morbidly high opinion of ourselves. We have contracted a kind of general hypertrophy. Our eyes have become very large; so have our expectations. We have

over-rated our success in almsst everything we have undertaken to do ; and there have been more than the ordinary motives present to do this in surgery. Fond of being regarded as successful, our surgeons, as a general rule, have let no opportunity pass to present the bright side of the picture. So predominant has this feeling been, that the otherwise good name of some very distinguished men, of both ancient and modern times, has been by it brought into disrepute—truthful and candid in everything except their results in surgery. Touch this subject, and they become at once romantic.

In summing up what has been advanced, the following points seem entitled to notice :

1. Surgery, although of very ancient origin, has had, during nine-tenths of the time of which we have anything like a reliable account of things, a very slow rate of progression.

2. The literal signification of the term *chirurgery*, of which “surgery” is an abridgment, shows that mechanics was anciently regarded as making up almost the entire of the department.

3. Operations were undertaken and performed, until within the last three hundred years, mostly under the direction of the gods. Poets, statesmen and philosophers, in their views of what was requisite for the cure of severe injuries, paid but little attention to the professed surgeons of the day, but invoked the aid of Apollo, the ancient god of physic.

4. Those into whose hands surgery was at first committed, had no conception of the knowledge necessary to the performance of even the simplest operation ; and afterwards, when anatomy was ascertained to be requisite, political and religious edicts were interposed to prevent its study.

5. The mechanical era of surgery reached its climax during the time that the Arabs had charge of medicine, as was expressed by the variety and complication of apparatus which they invented.

6. After the agency of the Arabs, when medicine returned to Europe, surgery began to be regarded as something, the proper consideration of which involved science as well as art. Different departments of nature began to be interrogated, instead of following the blind authority of the ancients. It came to be suspected that a butcher might amputate the thigh, but that it required the philosophy of a Plato, who by the way was also something of a surgeon, to know whether the operation should be performed.

7. The philosophical period of surgery not only takes in everything pertaining to mechanics which can be made available in an operation, but also proper views of surgical pathology—the amount and character of the disease present, the nature, extent, etc., of injuries, and the ability of the organism to cure itself.

8. Success, as a general rule, has been over-rated by surgeons. This has been due to several causes. Limited experience, which is capable of proving anything, however ridiculous, has been too often appealed to when favorable, and but seldom when otherwise. This error has been more general than might at first have been supposed. Giving publicity to a failure in an important operation looks too much like publishing a surgeon's own shame, and, as Hippocrates suggests, little minds, conscious that they have nothing to spare, can't get their consent to take the investment—to embark in that kind of enterprise. Where it is important that posterity should know the truth, the man of real ability will confess his errors. The value of an operation can only be tested by enlarged experience. Great numbers reveal the truth in spite of opposition. A Royal Society, as we have seen, was surprised on learning the mortality, as shown by statistics, of amputations, and could only be induced to believe the truth after the most thorough re-examination had been instituted.

9. As a consequence of getting up a false standard of success, hopes are inspired that cannot always be realized. The surgeon gets improper conceptions of the amount of risk involved—the many contingencies that affect results. He too often finds himself unable to meet expectations that have been created for him, or that he himself has been instrumental in creating. The consciousness that, although he has failed in curing his case, he has exhausted the resources of the science in his favor, amounts too often to nothing, so far as satisfying the patient is concerned. Trouble results to both parties; and, as might be expected, from the contentions which usually ensue, a final result is, that the dignity and usefulness of the profession are impaired.

10. Surgeons themselves having been most to blame for false views in prognosis, to them, and to them alone, we must look for the remedy. When an eminent surgeon, for example, of Paris, London, Philadelphia or New York, stated that fractures of the thigh bone, or clavicle, except when very oblique, should in nine cases out of ten be cured without deformity, those of little experience in the profession, and the people, believed the assertion—took the saying as

the rule, and acted accordingly. The physician was ready to blame himself or his neighbor, for not coming up to the standard ; and the people were ready to do the same thing — or rather to supply his deficiencies of practice out of his purse. Having, we repeat, been instrumental in getting up the trouble, surgeons would now feel themselves called upon to supply the remedy. Every consideration calls for this. It is not only due to the welfare of the profession, but it is required by the cause of truth. There is enough in the calling that will commend it to confidence and esteem, without extravagance and false estimates. Let the truth have fair play, and no one will then have reason to complain. But, most of all, we want the truth for the truth's sake.

What per cent. of success justifies an operation? We have met nowhere with a discussion of this question. Perhaps it is complicated with so much requiring consideration, so much that has reference to the especial character of the case or class of cases presented for operation, that surgeons have recognized it as a rule, that *no rule can be established* — that the propriety or impropriety of an operation must be determined by the individual features of each case. With operations instituted merely for the purposes of symmetry, or the repair of many injuries, as is the case with a large proportion, there can be no question of any great importance. Instituted, however, for the purpose of curing a disease, or avoiding the consequences of an extensive accident, many questions may arise touching the propriety of the procedure.

The mortality connected with surgical operations, as all know, may proceed from several sources. It may be due simply to the operation itself, or to the disease for which the operation is instituted. A few thoughts on each of these topics.

Operation mortality, from a variety of circumstances, is difficult to understand. With its *ratio* we are not at all acquainted ; we merely know some of the things by which this is influenced. The kind of mortality before us must always be varied by the character for vital importance of the parts or organs involved. It must necessarily be higher in amputations of the thigh than of the arm ; in the ligature of a large, than of a small artery. Amputations of the thigh, particularly of the hip joint, so interferes with, or influences the movements of the organism, that if statistics could be obtained showing the results of the operation in perfectly healthy conditions of the system, it would be seen to be very high, for the reasons already

given. In the same category stands the ligature of the *arteria innominata*, which has now been performed *eleven* times with fatal results in every case. This shows too much mortality to exclude the operation from the larger share of it. The same result would, though for different reasons, follow ligature of the ascending and descending vena cava, and most likely also ligature of the portal vein or renal arteries. No attempt at extirpation of the heart, the lungs, the liver, or the kidneys would be thought of, because of the essential character of these organs to the system, and the incidental injury and destruction of other parts indispensable to life.

The mortality proper to operations, it is equally evident is varied by much that relates to the operator, methods of operation, adjuvants, etc. Greece, Italy and Arabia, while they prohibited the cultivation of the knowledge on the part of the operator necessary to perform an operation in the light of the structures involved, could not expect success; nor did they receive it at the hands of their surgeons. Frere Jaque, of France, who, during the fore part of his career as a lithotomist, was in the habit of plunging the knife indiscriminately into the perineum, of course raised the mortality of the operation much above its proper standard. The same may be said of every one else ignorant of structure, relation, etc. *Dexterity* and *method* have their value; but the latter much less than the credit it usually receives. Success is a matter regulated entirely by higher considerations—an acquaintance with locality, relation and physiology of the parts involved, and prevailing diathesis. Surgeons equally acquainted with these, only show weakness in contending for particular plans of operation; or some particular way of holding the knife. We had an instance in point lately, in a diatribe between a London and Edinburg surgeon—Ferguson and Syme. The question was, how Liston held the knife in operating for stone in the bladder?

The use of anæsthetics in surgery, although instituted for a different purpose at first, has lately been suggested as having an influence over operation mortality. Simpson has put himself to the trouble to collect statistics on amputations of the thigh, *with* and *without* the use of anæsthetics. He comes to the conclusion that the use of such agents in this operation, saves about eleven per cent. We have no comments to make on this conclusion. It comes from an ardent and able advocate of anæsthetics, whose limit to their application is

almost undefined. Preserving a patient from pain while an operation is going on, may rob the procedure of some of its dangers, as well as of its terrors. The pain occasioned by operations exhausts in several ways; and simply the removal of this, saying nothing about the increased facilities afforded to the surgeon by the passive state of the patient, may increase the chances of recovery.

The mortality of operations is again varied by the state, at the time, of the system. The presence of a diathesis or a cachexia could not otherwise act than to effect results. Paget states it as his opinion that the operation for the removal of cancer of the breast, has a mortality of its own of ten per cent. at any stage of the disease; and instituted after the cachexia is developed, it is higher.

We have been noticing the mortality proper of operations—the loss of life simply incident to cutting, sawing, etc. We will now, for a moment, offer a remark or two on the mortality of injuries and diseases, when not subjected to surgical efforts. This opens a wide field of inquiry, and one that we shall make no attempt to occupy. A very few things in connection with the subject will serve our purpose.

Very few accidents of a grave character, and no diseases scarcely, with the single exception, occasionally, of cancer, have been allowed in this age of invention and improvement, to go to a final issue without interference of some kind or other; and when such has been the case, the circumstances have generally been of a character that rendered it impossible to ascertain results.

Paget, in a lecture delivered at the College of Surgeons, about four years since, stated that the average duration of cases of cancer of the breast, when left to themselves, is *thirteen months* greater than when the diseased breast is removed by an operation. In a late number of the London Lancet, after investigating the subject more fully, the same author gives 75 cases not submitted to operations, and 64 cases that were operated on. The average duration of life in the class not operated on, was 48 months; in the class subjected to operation, 52 months, a difference of four months in favor of the latter. This estimate, it should be remembered, does not include those who perished from the immediate effects of the operation, which, if given, might change the results very essentially. Accident sometimes develops a truth in point—shows the mortality of injuries when unaided. It occasionally has happened that it proved inconvenient, and sometimes impossible, for military surgeons, after

a battle, to give attention to some of the graver forms of injury, such as compound or comminuted fractures of the thigh bone. Such not being subjected to the usual practice of amputation, have went to a final result, managed alone by the *vis medicatrix natura*. Now, from the circumstance, as it has been noticed, that a larger proportion of such cases—cases requiring amputation on the shaft of the bone or at the hip joint—recover when left to themselves, surgeons are beginning to call in question, to some extent, the propriety of their former practice.

Finally, in deciding upon the propriety or impropriety of a surgical operation, the mortality of the operation, and the mortality of the disease when left to itself, have both to be taken into the account; and if after a proper estimate of both, one single case can be adduced, or there is but one per cent. in favor of an operation, the measure, in our humble opinion, is justifiable.

In conclusion we may state, that we are conscious of having added nothing by this report to our present stock of knowledge. At this we have not aimed. We have some matter on hand that has not yet seen the light, and that might have been crowded under the head of "contributions," but we have not thought proper to insert it. Our opinions were that we might content ourselves with a brief review of some of the more important points of surgical science, in order to see how they are understood, and the practical bearing of this upon the profession. There is often as much to be gained by cultivating an old field, as by advancing into new territory.

The progress of surgery, considering the date of its true origin, has been rapid, we might almost say triumphant. It has kept pace in modern times with civilization, with the arts and sciences; and is, without any doubt, destined to reach a position in the future that will connect it with departments of human knowledge that are regarded as comparatively exact. Our age has developed some totally new operations. Besides, the debris of the ancients has been looked into, and old operations that were meritorious, but neglected, have been revived.

The most valuable improvements, seem not confined to any particular country. From all parts of the world where our kind of civilization obtains, more or less is constantly being produced; and we should do injustice to our country not to recognize her agency in contributing some of the most important inventions. We have

had no disposition to be censorious in what we have said of surgeons. We have alluded to their mistakes for no other purpose than that others might not be similarly victimized. From the best motives, they have got, so far as success is concerned, the profession into a false position, and we have done what we could, in the meagre limits of a report, to bring the fact to public attention. The profession and the public are more interested in what *can be done* than in what any *one professes to be able to do*.

We have, as will be observed, gathered the materials of our report from a number of sources, most of which have been indicated. In the matter of general statistics, a work of great labor and care, the authors are noticed by name.

A Retrospect—Paris in 1856. By W. L. McMILLEN, M. D., Columbus, Ohio.

Recollections of past events, when of a profitable character, are always happy, and the pleasure thus derived is much enhanced by revealing those remembrances to others, in order that they may participate with us in this means of enjoyment. In company with those who may see proper to follow me through a few pages, I propose passing in short review a life of some months in Paris, hoping to derive such advantage therefrom, as recollections of "men and things," in a place of that character would very naturally afford.

The better to benefit any one who, like myself, may visit Paris, not only entirely ignorant of the city and its people, but also of the language, and the best manner of at once setting about some systematic course for the profitable employment of time, I will first enumerate some of the embarrassments incident to such a situation, and the best means of overcoming them.

Perhaps nothing is more prominently felt by a person who, for the first time, sees a foreign city, than the unsatisfactory nature of those general ideas, which every one derives from reading books of travel, detailing the experience of others. We all see objects through different mediums—ordinarily through the coloring which our business or profession imparts to them—and the medical man upon enter-

ing the city of Paris, for instance, for the first time, and failing to see any immediate evidence of the existence of the *Hôtel Dieu*, *La Charite* or *Du Midi*; or to be nudged by the arm and warned of the approach of Cruveilhier, or Andral, or Velpeau, or of the fact that Ambroise Paré, or Lawrence, or Dupuytren, has trod the ground on which he stands, feels a sense of disappointment, as if the foundations of his faith were giving way, and the place after all were not the "Athens of medical science" it had been pictured. Nowhere are to be seen evidences of the existence of those objects, which until the present moment had always, to his mind, constituted the towering features of the place. All around are in active play those incongruous elements which constitute the ebbing and flowing life of a great city, and in the presence of so much that is novel, former ideas and present prospects dissolve into vague uncertainties. If in his embarrassment, he seeks, as he supposes, information of some person or thing, known and read of all men, a significant shrug of the shoulders and a probable *je ne sais rien*, serve only to increase his dilemma, and render more painful the uncertainty of what is best to do next towards furthering his object. Under such circumstances, the best course for a total stranger to pursue, will be to seek out some initiated countryman and from him learn how "to go about doing things." The names and residence of such he will always be able to find at the office of the American Minister, and like Americans the world over, when once seen and properly informed of the necessities of their visitor, they will willingly impart whatever desired information may be in their possession. Advice will ordinarily be given to take rooms in the vicinity of some one or more of the general hospitals, and to occupy the major portion of the first two or three months in acquiring a practical knowledge of the language. This will usually be the best course to pursue, and in order to facilitate the accomplishment of this purpose, instead of devoting his whole time to books and teachers of languages, the student will do well to follow punctually and regularly every morning the *service* and clinical lecture of some one or more of the Professors. Even though unable to understand a single word that may be said, this course will prove advantageous, for, in addition to the opportunities it affords for valuable acquisitions by mere observation and independent investigations, it will be found a valuable means of "educating the ear," a matter of no secondary importance in acquiring a new language. Then, too, in the wards of the large Parisian hospitals

the physician is constantly meeting with representatives of his profession from all parts of the world, and intercourse of this kind is valuable in establishing cosmopolitan for sectional views.

A little further acquaintance with the place will reveal the fact that the great difficulty peculiar to Paris is *un embarras de richesse* in all that pertains to medical science. As the crystal jets which spring from beautiful fountains, in all quarters of the city, sparkling like gems in the rays of the setting sun, and imparting to all who come within their influence a scene of cool and grateful relief, are supplied from the ever-flowing Seine; so her fountains of knowledge, are supplied from a liberal and unfailing source, radiating their grateful blessings throughout a circuit whose a limit is the uttermost parts of the earth.

This profusion begets the necessity of choosing from the mass such portions as may be needed to supply the more pressing wants of the student, and here every one will be materially benefitted by having determined before leaving home the particular department of medicine he intends to investigate, or the specialty he wishes to prosecute. Unless a man has years to spend abroad, an attempt to take advantage of all opportunities for information in every branch of his profession, would lead to a dissipation of time and the accomplishment of no good end. A wise and judicious course, predicated upon the wants and designs of the individual, should be marked out and rigidly adhered to under all circumstances.

As but little is probably known among the readers of the Journal about the organization and administration of those medical charities which reflect such marked credit upon the French Capital, I propose giving a short account of some of the more prominent ones, together with the men at present connected with them, in the course of which the advantages they afford the medical student, referred to above, will, in part, manifest themselves. They all come under the head of

CHARITABLE INSTITUTIONS.

These are of two distinct classes, namely: *hospitals* and *hospices*. With the nature of the former all are acquainted. The latter are establishments where infirm or aged persons, deprived of the means of existence are lodged and supported. A hospital differs in consequence from a hospice in being only a temporary retreat where gratuitous care is given the sick, but which should only contain patients susceptible of cure: thus we say *l'hôpital de la Charité, l'hospice de la*

Salpêtrière the former being a general hospital, the latter an asylum for the insane. Both terms are derived from the latin *hospitium*, which among the Romans signified a house where gratuitous hospitality was received.

At an early period in the history of Paris numerous establishments for the relief of suffering humanity were founded. They were, however, badly managed, their purposes perverted, their revenues applied to other objects, and as a consequence the suffering wretchedness and mortality of their inmates rendered almost beyond credence. A short time before the revolution of 1789, Louis XVI. caused the Academy of Sciences to make an investigation into the condition of the Hôtel Dieu. Their report showing its deplorable condition, a plan for its amelioration, and an order for the construction of several new hospitals was the result.

This project gave great satisfaction to all classes, but owing to the unsettled state of the times and the profligacy of the Minister Colonne, large sums of money which had been raised for carrying it into effect were squandered. Even the terrible events of the revolution which soon followed, did not wipe out all remembrance of the above plan or diminish the general desire to see it executed. In 1793, by decree, the convention converted the convents and other buildings, which had become national property, to hospital uses. By subsequent decrees, their general management was vested in sixteen members of the National Convention, two new hospitals established and the beds in those already existing considerably augmented. In 1849, everything relating to public assistance was placed under a special administration, called *Administration Générale de l'Assistance Publique à Paris*. It is under the control of the Minister of the Interior, and is managed by a director and a *conseil de surveillance*, consisting of twenty members, and presided over by the prefects of the Seine and of police.

The civil hospitals of Paris are divided into two classes: 1st. General Hospital, open for such diseases as are not specially provided for; 2d. Special Hospitals, which are devoted to the treatment of particular diseases, as cutaneous, syphilitic, &c. Of these two kind, together with the hospices, there are some 26 under the control of the *Administration Générale*. The *Conseil de Surveillance* is administrative in character, and regulates all the financial affairs of the different institutions. In addition to this there is a *Bureau Central d'Admission*, which consists of a Board of 12 physicians and 6 surgeons. From this body hospital surgeons and physicians are se-

lected, and they issue cards of admission to patients, indicating the particular hospital he is to occupy according to the nature of his complaint. Patients are also admitted in cases of emergency by the medical officer of the day at any of the hospitals, and also by the chief physicians and surgeons at their morning *consultations*. The Board also give advice gratuitous to indigent families, and twice each week children are vaccinated at their office. This operation is performed once every week at all the *mairies* of the city, and to encourage parents to submit their children to this useful practice, 3 francs are paid for each child, and children not having been vaccinated are excluded from the free schools.

The following extract showing the statistical condition of the hospitals of Paris for the year ending December 31st, 1855, may not be without interest:

“The total number of patients admitted was 87,105, viz: 62,616 medical, and 24,489 surgical cases. The number of patients cured was 77,758, viz: 54,405 medical, and 23,253 surgical cases; the total number of deaths was 9,233, viz: 3,049 medical, and 1,184 surgical cases. The *Hospices* and *Maisons de Retraite*, received 12,490 individuals; the exits were 10,597, and the deaths 1,998. The average number of days passed in the general and special hospitals by each patient was 23.96 days; the average for men was 23.85; for women, 24.23; for boys 22.51; and for girls, 24.80. The mortality in the general hospitals averaged for medical cases, 1 in 7.34; for surgical cases, 1 in 19; in the special hospitals, for medical cases, 1 in 10.06; for surgical cases 1 in 25.98. The greatest number of beds occupied at any one time, during the year, was, for the general and special hospitals, in March and December; the smallest number in July and August.

“The financial condition of the hospitals and charitable institutions dependent on the General Administration was as follows: Total receipts, all deductions and allowances made, 14,021,539 francs. Total expenditures, allowances and additions included, 13,938,110 francs. The average cost of each patient per diem was: General Hospitals 1 fr. 85c.; Special Hospitals, 1 fr. 88c. All public places of amusement pay a tax of 8 per cent. on their receipts towards the support of the hospitals. A heavy tax for their support is also levied on every piece of ground purchased for the purpose of burial in the cemeteries. Private munificence contributes largely to their maintenance.”

GENERAL HOSPITALS.

Hôtel Dieu.—Nothing can exceed the feeling of interest with which the medical visitor approaches this venerable temple of his profession. Antiquity crowns it with a peculiar charm, whilst private charity and Imperial bounty have endowed it with such dimensions as to render it a harmonious neighbor of that other glorious *relique* of the olden time, *Nôtre Dame*. Situated upon the *île de la cité*, they occupy a central and convenient position. It is the oldest hospital in Paris, and is supposed to have been founded by St. Laudry, bishop of Paris, sometime in the 7th century. Philip Augustus, its earliest royal benefactor, called it *Maison de Dieu*, and in 1789 it bore the appropriate title of *Hôpital d' Humanité*. St. Louis, Henry IV, and other Kings have conferred special benefits upon it. A portion of the hospital occupies the main-land side of the river, and is connected with the chief building upon the island by means of a covered bridge and tunnel. On each side of the hall, just within the main entrance, are two marble statues, one of Monthyon, the philanthropist, and a great benefactor of the hospitals of Paris; the other of St. Vincent de Paule, in one arm holding an infant, and stooping to take up another. Portraits of Dupuytren, Desault, Bichat, and others, decorate the walls. A beautiful marble monument also perpetuates the memory of the early dead, but gifted Bichat.

The wards of this hospital are very long, dark, and but poorly ventilated, in consequence of which, together with a seeming infection of the entire establishment, from having been so long used for hospital purposes, the bills of mortality are very large, and diseases of an epidemic character rendered almost beyond control. Only this last spring in the lying-in-ward an epidemic of puerperal fever made its appearance, and so baffled the extraordinary efforts of the physician to arrest it that the *Salle* had to be closed, not, however, before a number of lives had been sacrificed. So great is this evil that it is in contemplation to tear down the present buildings as soon as they can be spared; and erect larger and better adapted rooms in their stead. The total number of beds is 900, and patients of all kinds, medical and surgical, are admitted.

The most prominent men, and the only clinical Professors connected with the hospital at the present day are M. M. Jobert and Trousseau, the former of Surgery, the latter of Medicine. M. Jobert has acquired something of a reputation by his *Traité de chirurgie plastique*, an elaborate and very valuable work; also by his

dexterity in all operations upon the genito-urinary organs. As a clinical lecturer, and accomplished surgeon, however, he is very much inferior to several other members of the faculty, as the empty benches upon his mornings amply attest. How he came to be elevated over the heads of better men to fill the "post of honor," is an enigma to all, until informed of the fact that he is the chosen surgeon of the Emperor, and that in the Parisian world, as everywhere, "kissing goes by favor."

M. Trousseau is deservedly one of the most popular teachers in the city. Possessed of a comprehensive and analytic mind, he also has the happy faculty of presenting his subject in a clear didactic style, clothed in language at once elegant, and to the foreign student easily understood.

Hôpital de la Charité.—This establishment was founded in the early part of the seventeenth century, by Marie de Médicis, and was originally intended for a community of *Frères de la Charité*, which consisted of surgeons and apothecaries, who not only afforded medicinal aid to the sick, but also administered to their spiritual wants. The buildings are large and airy, and owing to extensive repairs, which are still going on, in a good condition. The hospital contains about 500 beds, and the same diseases are treated as at the Hôtel Dieu. The average number of patients admitted per annum is 10,700; and the mortality 1 in 11. For many years past it has been distinguished as the scene of the labors of Velpeau, Cruveilhier, Andral, Piorry, and others, who have shed a peculiar glory upon the medical profession of Paris.

Mr. Velpeau for a long time has been the Apollo of surgery in Paris, and is perhaps better known throughout this country than any other French author. He is, however, growing old, and younger men are fast transplanting him in that kind of popular favor which secures crowded benches. Personally, too, he fails to impress favorably, for, added to a penurious nature, he has a cold, haughty air peculiarly freezing in effect, and in his intercourse with strangers displays but little of that *suaviter-in-modo*, which ordinarily characterizes the gentleman. As a teacher, however, he occupies a place in the first rank. In addition to his long and valuable experience as a surgeon, he is peculiarly endowed in semeiology possessing a remarkable facility and clearness in this department of science. His life affords another of the numerous examples, of how much a man, who is desirous of serving his day and generation, can accomplish under all the disadvantages which obscure birth and poverty entail. Born

and raised in an humble sphere, by his own inherent energy and will, he has conquered a prominent position among the best men of his day.

M. Cruveilheir has been long and favorably known as the Professor of Path. Anat. in the University of Paris, and the author of a fine work upon that subject. He is a little, old comical looking man, but to those who follow his service, communicative and instructive.

[*To be continued.*]

ART. IV.—*Diphtheritis*. By W. WALLACE SHEPHERD, of Samantha, Ohio.

PROF. DAWSON: Permit me, through the medium of your Journal, to offer a few remarks on the subject of *Diphtheritis*. This disease has prevailed quite extensively (among children) in this neighborhood during the last year; it generally makes its appearance in a very insidious manner, and seldom attracts attention in the early stage, the child rarely discontinuing its ordinary sports, only a trifling sense of soreness is experienced in the fauces, with little, if any, febrile excitement.

From the commencement of the attack the mucous membrane of the fauces is of a vivid red color, accompanied with very little, if any, pain or uneasiness; the bowels are generally constipated; the tongue is red at the tip and edges, and covered on its surface with a thin white coat, through which large red papillæ protrude. A peculiar pointed appearance of the tongue is almost always present, and is a valuable aid in the diagnosis of the disease. The vivid redness of the fauces may continue for a period varying from two to forty-eight hours before the exudation commences; at this period the surface exhibits small irregular, gray colored patches closely adherent to the surface of the inflamed mucous membrane, and generally scattered over the whole of the posterior fauces; the mucous membrane surrounding the patches is reddened and slightly edematous; there is seldom any swelling of the tonsils, nor have I observed in but one case any difficulty of swallowing; sometimes even in the early stage there is complete aphonia. In the most severe cases the patches become rapidly confluent, and cover the whole fauces. The disposition to exudation travels rapidly downwards, and when the

larynx and trachea become lined with the pseudo membranous exudation, the result has been in every case which came within my observation unfavorable, the little patient perishing asphyxiated as in croup.

But in one, "post mortem" examination was made in this neighborhood, and the larynx and trachea were found lined with a thick, yellow and exceedingly tenacious plastic exudation, firmly attached to the mucous membrane.

In the latter stage of an unfavorable case there is often a foetid, acrid discharge from the mouth and nostrils, sometimes mixed with dark colored blood, which in almost every case causes great irritability of the stomach and diarrhoea; "both these results are ascribable to the acrimony of the liquid secreted in the fauces, more or less of which is swallowed."

Diphtheritis may be confounded with pseudo-membranous croup, but the following signs will serve to distinguish the two diseases. Croup does not make its appearance in such an insidious manner as does this disease; in diphtheritis the exudation may *always* be observed in the fauces a considerable time before it invades the larynx, while in croup the exudation commences in the larynx, and is never associated with those malignant symptoms which frequently present themselves in this disease.

The appearance of the tongue may also be taken into consideration, for in croup we *never* have the peculiar pointed and indented tongue which is a pathognomonic sign of this disease.

The diphtheritic exudation differs very materially from that of thrush; in the latter the exudation makes its appearance in distinct, well-defined white specks, or curd-like vesicles which subsequently coalesce, and may be readily removed with the finger nail, without destroying the integrity of the mucous membrane, or causing the least extravasation of the blood. The former makes its appearance in ragged and irregularly circumscribed patches, and adheres very strongly to the mucous membrane underneath, so that it cannot be detached without causing slight hemorrhage from the denuded part.

The causes of this disease are exceedingly obscure. "Among the predisposing causes, age appears to have the greatest influence." The disease is not positively confined to any period of life, but persons over twelve or fourteen years of age are rarely affected; the

majority of the cases I have seen were between three and nine years of age. I never knew an adult to have the disease. Sex appears to exert no palpable influence. I have seen eleven girls and ten boys have the disease. I have not the least doubt but what it is epidemic and contagious. I have known it to attack eight children out of nine in a single family, without extending to others in the immediate vicinity.

The duration of the disease as it occurred in this neighborhood was from four days to three weeks.

The prognosis is favorable in good constitutions so long as the exudation evinces no disposition to invade the larynx, or malignant and typhoid symptoms do not supervene.

Treatment.—The following course of treatment was pursued in the epidemic aforesaid with marked success. In the first place a brisk mercurial cathartic should be administered. (Hyd. Submur. et Rhei āā gr. v, or Hyd. Submur. gr viij et Soda Bicarb gr. xij.) Venesection appears to exert little if any controlling influence, “at least it does not obviate the tendency to the plastic effusion.” I regard the mercurial preparations as the “sheet anchor,” and believe them to be peculiarly applicable, not only because children bear very large quantities with impunity, but also for the purpose of diminishing the quantity of fibrin and albumen in the blood, and thereby preventing the formation of false membrane, or promoting the absorption or separation of that already formed, and to favor its expulsion from the larynx. Alkalis may be tried for the same purpose; of these preparations I prefer the Bicarbonate of Soda.

After the larynx becomes involved expectorants should be freely given (along with the mercurials and alkalis) to promote the separation of false membrane. Of these I prefer the Syr-scill comp., or the following preparation:

R. Tict. Lobelia.
Tinct. Opii Camph.
Syr. Scill comp. āāf3j.

M. Dose, a teaspoonful “*pro re nata.*”

Nitrate of silver, dissolved in about six parts of water, should be freely applied to the fauces several times a day; indeed, I consider its use indispensable to the safety of the patient. Counter irritants

should be freely used upon the throat and upper part of the sternum. The following has been found to be an excellent application.

R. Ol. Lavandulæ f3ss.

Etheris f3ij.

Alcoholis f3i.

Tinct. Opii f3ij. M.

The throat should be kept well enveloped in flannel saturated either with the above or with camphor dissolved in the oil of turpentine.

In all instances the patient should be bathed morning and evening in tepid salt water, and afterwards rubbed perfectly dry with a piece of flannel or a coarse towel.

Emetics are rarely admissible, but may be tried as a last resort to expel the false membrane from the larynx. Zinci Sulphas or Cupri Sulphus are the most appropriate, as they do not affect the general system to such an extent as other articles of the class.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

Death of Marshall Hall.—Death, that most unsparing of tyrants, has exacted from the greatest physiologist of the age the last debt of nature. Slowly, surely, and relentlessly, disease has been undermining the earthly tabernacle of a mind which, for vast powers, high purposes, and indomitable energy, has found no superior in its native land in the present half-century. On Tuesday last, the 11th inst., Dr. Marshall Hall died at Brighton, aged 67 years.

It is impossible to record this melancholy event without feelings of the deepest sorrow. The loss is one which all must feel most keenly who have a reverence for high endeavors, for earnest devotion to science, and for all the sterling qualities which can adorn a man. Science has lost the worthiest of her sons, medicine has lost a great master, and philosophy a great thinker. The clear and vivid intellect of this celebrated man has steadily and successfully risen superior to the depressing influences of disease for the last fifteen years. Even during the present year, when confined to one room, his chamber has been a scene of intellectual activity. Physical de-

bility, which robs most men of their power of thinking and reasoning, had not dimmed the brightness of his wonderful mind. Clear and penetrating, and impelled by a wide philanthropy, the last contribution of Dr. Marshall Hall to science has been a pre-eminently useful one to the cause of humanity. It is thus that great men should die. There is a grandeur in such a life-end, to which the mere external grace of a falling Cæsar is not for one moment comparable.

Dr. Marshall Hall was born at Bashford, in Nottinghamshire, in the year 1790. His father was a manufacturer, and a man of no small capacity and information, and had the merit of being the first person to perceive the value of chlorine as a decolorizing agent, and applying it on a large scale. The gifts of intellect were bestowed with no sparing hand in this family. The father and two sons fully vindicated their claims to high intellectual endowments. But Dr. Marshall Hall has eclipsed his less brilliant relations. What in them was acumen and sagacity, was developed in him into genius. There was in him that rapid and far-searching intellectual vision which travels into regions far beyond the common ken of man, visible and appreciable only to the eagle glance of an almost prescient inquirer.

The history of such a man cannot fail to present numerous points of interest. The investigation of the rise and progress of a mind which has ever been foremost in the ranks of science, must afford many good and useful lessons. No fitful glare can be recognized in this life—no charlatanic attempt to pluck a crown of laurels which was not deserved; but a stern, conscientious, and faithful continuance of patient scientific toil, and the solid reward of a vast reputation.

The first step in Dr. Marshall Hall's education was taken at Nottingham Academy, then conducted by the Rev. J. Blanchard. From this school he went to Newark, where he acquired some elementary medical and chemical knowledge. But the first salient point in the life of Dr. Marshall Hall was his matriculation at Edinburgh University, in the year 1809. For a vigorous and apt mind, no better school could then have been chosen. In the present day it is hardly possible to realize the enthusiasm which inspired Edinburgh at that time. There were giants in those days. Enthusiasm, indeed, is almost too tame a word. There was a furor, an excitement produced by the united influence of a complete galaxy of talent. It was impossible but that such men as Cullen, Home, Rutherford, Gregory, Hamilton, Bell and Barclay, should kindle in the ardent minds of a vast concourse of students a flame which should burn with answering brightness to their own. From the school of that time we know many great men have sprung. It is unnecessary to particularize names which are "familiar in our mouths as household words." In that genial atmosphere, then, did Marshall Hall first imbibe that enthusiastic love of science which has been his most marked characteristic. With youthful impetuosity he plunged into the study of chemistry. Not content with merely assimilating the accepted doctrines of the science, he boldly endeavored to push its boundaries farther. With wonderful power of generalization for so young a man,

and with such small materials as then existed for the purpose, Dr. Marshall Hall pointed out that there was a grand distinction between all chemical bodies, which ruled their chemical affinities. He showed that this distinction was the presence or absence of oxygen. That oxygen compounds combined with oxygen compounds, and compounds not containing oxygen with compounds similarly devoid of that element; and that the two classes of compounds did not combine together. He believed that this general law would elucidate other chemical doctrines, and might prove valuable in the prosecution of still more recondite principles. But a mind of such soaring aspirations was not likely to confine itself even to such a comparatively wide field as chemistry. The vast domain of medicine was before our student, rich in unexplored regions, abounding in all that could excite his eager spirit of inquiry, and reward his love of definite results. It was exactly at this period in the history of modern medicine that physicians were taking stock, as it were, of their old principles. Morbid anatomy, pursued in close connection with clinical medicine, was showing the defects of diagnosis. With the sagacious eye of one who was capable of seeing that the great necessity of the day was a science of diagnosis, Dr. Marshall Hall threw himself into the prosecution of this immensely important department of medicine at once. Here again we find fresh evidence of his eminently progressive spirit. No mere systematizing of what other men had gathered, but an original and comprehensive treatise resulted from the labors of his student life and early years in the profession.

In 1812 Marshall Hall took his degree of M.D., and shortly afterwards was appointed to the much-coveted post of house-physician, under Drs. Hamilton and Spens, at the Royal Infirmary of Edinburgh. In the following year we find Dr. Hall lecturing on the Principles of Diagnosis to a class, amongst whom were Dr. Robert Lee and Professor Grant. It was from this course of lectures that the treatise on Diagnosis, which was first published in 1817, took its origin.

In 1814 Dr. Marshall Hall left Edinburgh, after a residence there of five years. Great as was the individuality of this remarkable man, we cannot but point out that he was reared in a great school, taught by great men, and infected with an enthusiasm which pervaded, in some degree, all who came within its magical circle. Before entering upon his career as a private practitioner, Dr. Hall determined to visit some of the continental schools. We find him, therefore, shortly after his departure, successively at Paris, Berlin, and Gottingen. The journey was made partly on foot, and armed. At Gottingen Dr. Hall became acquainted with Blumenbach.

In 1815, Dr. Marshall Hall settled at Nottingham as a physician, and he speedily acquired no small reputation and practice. After a time, the appointment of physician to the General Hospital there was conferred upon him, and in that sphere he labored until his removal to London, about ten years after his first settlement at Nottingham. Of his work on Diagnosis it is almost unnecessary for us now to speak in terms of praise. Comprehensive, lucid, exact and reliable,

this work has, in the main, stood the test of forty years' trial. A better has not been produced. It was at this period of his career, too, that Dr. Hall made his researches into the effects of the loss of blood, the result of which was embodied in a paper read before the Royal Medical and Chirurgical Society in 1824. This paper and another in 1832, detailing Dr. Hall's "Experiments on the Loss of Blood," were published in the "Transactions of the Royal Medical and Chirurgical Society." It is hardly possible to overrate the importance of these inquiries. They revolutionized the whole practice of medicine. A new light broke in upon the medical world. A distinction, not recognized before, was drawn between inflammation and irritation. It was pointed out that delirium and excitement were by no means necessarily declaratory of cerebral or meningeal inflammation, or even congestion. Loss of blood was shown to be at the root of much that had passed before for various grades of inflammation. Practical rules were deduced both for treatment and diagnosis. It was shown that active inflammation produced a tolerance of bleeding from a free opening in the upright posture; and the rare merit of supplying at once a rule of treatment and a rule of diagnosis was Dr. Marshall Hall's. Other works came forth from his pen about this time, for his mind was teeming with ideas, and his activity as an observer was unparalleled. It is hardly possible to enumerate all, but in 1827 came the "Commentaries upon various Diseases peculiar to Females"—a work which may still be consulted with advantage.

It was in 1826, that Dr. Marshall Hall sought this great metropolis as the umbilicus of the world. So active and earnest a mind could not find enough to satisfy its eager cravings in a provincial town. It was here, in this mighty city, that he determined to measure himself again with numerous competitors, and to win, if possible, all the honor and all the rewards that fortune can give to those who woo her stoutly. The mind of this great man was essentially metropolitan and liberal. A fair field and no favor, and victory to the strongest, were the characteristics of his mind.

The next onward step in Dr. Marshall Hall's career was a series of researches into the circulation of the blood in the minute vessels of the batrachia. A great step in physiology resulted from these. It was shown that the capillary vessels, properly so-called, are distinct absolutely, both in structure and function, from the smallest arteries or veins; that the capillaries, or *methæmata*, are the vessels in which the nutritive changes in the economy are carried on.

But the great source of Dr. Marshall Hall's honor, the basis upon which his fame must rest in all time to come, was yet undeveloped; his paramount claims to the admiration of his contemporaries and of posterity consists in his discoveries concerning the nervous system. Like all really important discoveries in natural science, those of Dr. Marshall Hall have had great practical effects. The soundest theory has been shown to be the best foundation for practice. That stupid heresy, that there is a vital distinction between the practical and theoretical man, was never more completely disproved than in the case

of Marshall Hall. But we must endeavor to trace the progress of his researches. While engaged on the *Essay on the Circulation of the Blood*, it happened that a triton was decapitated. The headless body was divided into three portions: one consisted of the anterior extremities, another of the posterior, and a third of the tail. On irritating the last with a probe, it moved and coiled upwards; and similar phenomena occurred with the other segments of the body. Here, then, was a great question. Whence came that motor power? To set at rest that question, to solve that problem, has been the great labor of Dr. Marshall Hall's life.

The establishment of the reflex functions of this spinal cord; in short, the whole of the excito-motor physiology of the nervous system is the sole work of Dr. Marshall Hall. And not only this, but he has shown that there are in reality *THREE* great classes into which the various parts of the nervous system resolve themselves; the cerebral, or sentient-voluntary; the true spinal, or excito-motor; and the ganglionic. This was the real unraveling of that perplexed and tangled web which none had before been able to accomplish. The true idea of a nervous center could never be said to have existed before the time of Marshall Hall. The ideas of centric and eccentric action, of reflexion, &c., so necessary to the comprehension of nerve-physiology, were unknown before the labors of this great discoverer. But these physiological discoveries were not mere barren facts. How rich a practical fund of therapeutical measures naturally follows the physiology and pathology of the excito-motor system, every well-informed physician can testify. Two departments of medical practice had gained incalculably. The success of Dr. Marshall Hall in the treatment of nervous diseases was almost entirely the result of a rigid application of his own physiological discoveries to their pathology and therapeutics. Obstetricians have found their art elevated more than any other branch of medicine. In the place of uncertain and empirical rules, there are now definite and scientific principles upon which to fall back, with the unhesitating assurance that they will stand in good stead. The most complicated of all physiological acts, viz: the act of parturition, has, by the aid of the excito-motor system, been unraveled and reduced to beautiful harmony, if not simplicity. In like manner, many of the diseases of pregnancy are explained and illuminated by the same physiological knowledge. Innumerable symptoms of other diseases are rendered intelligible and rational, which before were obscure and empirical. But to follow out the influence of Dr. Marshall Hall's discoveries through their numerous and important ramifications would be almost to write a volume on the principles of medicine. It is impossible to say when we shall cease to find some new and important application of his discoveries to the great art of healing.

We cannot pass by this period of Dr. Marshall Hall's life without remarking upon the disgraceful treatment he received from the Royal Society. The days of persecution had happily passed by, but the day of dull obstructiveness still remained. The Royal Society thought Dr. Hall's memoir "*On the True Spinal Marrow and the*

Excito-Motor System of Nerves," unworthy of publication! So much for the acumen of this Society. A very different verdict has, however, been given since by the great body of scientific men; and the Society, which formerly received this great man's contribution coldly, now mourns the loss of its brightest and most illustrious member.

Since the promulgation of his researches upon the nervous system, Dr. Marshall Hall has been principally occupied with extending, applying, and developing them in every possible direction. The admirable success with which he indoctrinated the profession at large with his views must be attributed as well to his native lucidity as to their inherent truth.

During the time of Palmer's trial, it occurred to Dr. Hall to institute a physiological test for the recognition of strichnia. As if to show the absolute correctness of his views, and how unlimited were the number and nature of the scrutinies they would bear, he found that a frog, immersed in water containing the $\frac{1}{50000}$ part of a grain of strychnia, would, in process of time, be thrown into tetanic convulsions. For the details of these experiments we must refer to *The Lancet* of last year. The physiological test was found to be far more delicate than the chemical. Here was an instance of sagacity and precision of thought which would have done credit to any man in the flower of his age.

The last and crowning effort of Dr. Marshall Hall in the cause of science and humanity has been his discovery of what is now universally known as the "Marshall Hall Method" of restoring asphyxiated persons. How completely and irrefragably he has proved the inutility and danger of the practices hitherto in vogue for the resuscitation of asphyxiated persons! Space prevents us from going into the theoretical details of Dr. Marshall Hall's method; but our columns have, for any time these last six months, contained overwhelming proofs of its *truth* and adaptation to practice. It is pleasing to find that this last labor of a great mind has been a labor of love, something added to the stock of human happiness, something taken away from the bitterness of life. It is singular enough that in the very place where Marshall Hall has drawn his last breath, two cases have lately occurred illustrating the superiority of the "Marshall Hall Method" over the empiracle rules of the Royal Humane Society. In one case of drowning the warm bath was administered; in another the "Marshall Hall Method" was resorted to; in the first case death was the result; in the second, restoration to life. It is also remarkable that in this number of our journal should be recorded three more examples, illustrative of the successful application of the "Marshall Hall Method" of treatment. It is curious, too, that one of them should have occurred at Nottingham.

In the practice of his profession, Dr. Marshall Hall was very successful. He linked himself early and resolutely to a great subject, and rose into fame upon his development of it. He realized an ample fortune as the reward of a life of unremitting toil. We do not mean to imply that competency was hardly earned under such conditions.

Such a man would have been less than happy in a different sphere. Labor was to his restless and indomitable spirit a necessity. Even now, when we are recording the death of this illustrious and lamented physician, there is a volume in the press—a recent effort of his prolific mind; and until within two months before his dissolution, the mental energies of this extraordinary man were engaged in preparing for publication, in *The Lancet*, a series of papers, entitled, “The Complete Physiology of the Nervous System.”

It is somewhat remarkable that Dr. Marshall Hall never held the office of physician in an hospital in London. He was only physician to a dispensary for a short time. He lectured at the Aldergate-street and Webb-street School of Medicine, and also at St. Thomas’s Hospital Medical School. He was a candidate for the Professorship of Medicine at University College upon one occasion; but owing it is believed, to some improper influences, matters assumed such an aspect as to induce Dr. Hall to retire from the field.

We have thus far considered Dr. Hall as a man of science. In other relations of life he was equally deserving of our highest respect. As a politician, he was liberal in the highest degree. He was a strictly moral man, and was deeply imbued with a sense of the obligation of a *practical* cultivation of religion. That which he thought right to do, he *did*, with unswerving honesty and courage. All subterfuge, trickery, quackery and guile were utterly foreign to his nature. So simple and childlike was he in disposition, as hardly to be able to imagine in others the guile which had no home in his own breast. He was a kind husband, a most indulgent father, and a faithful friend. He married, in 1829, Charlotte, second daughter of Valentine Green, Esq., of Normanton-le-Heath, Leicestershire. Mrs. Marshall Hall’s maternal grandfather was M. P. for Shaftesbury, and son of Dr. Cromwell Mortimer, physician to the prince of Wales, father of George III. Throughout the protracted illness of Dr. Marshall Hall, the assiduous, devoted, and unremitting attentions of an affectionate wife were probably never surpassed. This testimony is due from personal observation of fact. The deceased has left one son, who has relinquished the profession for the rural life of a country gentleman.

We must now close our notice of one over whose name we would fain linger. Melancholy as it is to say he *was* amongst us, our sorrow is stayed by the reflection that he did not live in vain. All that a grateful profession has to give to his memory will be given. We shall still think of him with affectionate respect as a Father in medicine, but as a child in the purity and simplicity of his mind. Though no title has adorned the name of the great Marshall Hall, we who are left behind will esteem him as one who would have graced rather than have been graced by honors however exalted. The *title*, which he preferred beyond all others was that of the English physiologist.

The mortal remains of this distinguished man were, on Wednesday last, removed from Brighton to Nottingham, where; we believe, a post-mortem examination has been made by his brother-in-law, Mr. Higginbottom, his nephew, Mr. Higginbottom, Jr, and Dr. Ransom,

physician to the Nottingham General Hospital. It is believed that the death of Dr. Marshall Hall was caused by exhaustion produced by a stricture of the œsophagus of many years' standing, accompanied latterly, it was considered by many eminent surgeons, with malignant ulceration of the part. Dr. Alfred Hall, of the Old Steyne, Brighton, was one of the chief medical attendants of the deceased in his last illness. Sir Benjamin Brodie had long since pronounced the malady from which Dr. Marshall Hall was suffering to afford no hope of the application of any permanent remedy.—*London Lancet*.

Etherization in Paris.

The influence exercised by the French Academy of Medicine is far greater than that possessed by any of our scattered societies for the discussion of medical matters. This gives proportionate interest to those elaborate debates on important and momentous topics which from time to time occupy the attention of the academy, a whole month being sometimes devoted to the thorough investigation of a single subject. Last week was concluded a long and spirited debate, which had extended over several *seances*, on the important subject of administering anæsthetics, or, as our French neighbors call it, etherization. M. Devergie, whose name is so well known in connection with medical jurisprudence, had some qualms of conscience in regard to the responsibility incurred by medical men in cases of death during the administration of chloroform. These he submitted to the consideration of the academy. Evidently believing that asphyxis is the general cause of death in such cases, he urged the absolute necessity of employing an apparatus for inhalation which should provide a definite admixture of air with the vapor; and this last question became the most prominent one in the debate. M. Velpeau stated that he had administered chloroform three or four thousand times in ten years without an accident; and M. Huguot mentioned that only one medical man in Paris employed any mechanical contrivance for inhalation. The general opinion of the academy seemed decidedly opposed to the deductions of M. Devergie as to the general cause of death, the advisability of using an apparatus, the necessity of definitely restricting the dose administered, and the propriety of rendering the medical man responsible in case of accident. The debate was finally closed by the academy giving its assent to the following resolution, proposed, singularly enough, by M. Devergie himself:—"The academy declares that, in the present state of science, etherization may be practiced with or without apparatus; and that the choice of means should be left to the judgment of the physician or surgeon."—*London Lancet*.

Population of Russia.

The *Moniteur de l'Armée* gives the following as the results of the census of the Russian empire taken by order of the emperor at the time of his accession to the throne : "The total number of the population amounts to 67,000,000, the principal elements of which give results unknown to the rest of Europe. The clergy of the Russian church stand for the enormous number of 510,000 ; that of the tolerated creeds, 35,000 ; the hereditary nobility, 155,000 ; the petty bourgeoisie, including discharged soldiers, 425,000 ; foreigners residing temporarily, 40,000 ; different bodies of Cossacks, colonized on the Oural, the Don, the Wolga, the Black sea, the Baikal, the Baschkirs and the irregular Kalmucks, 2,000,000 ; the population of the towns, the middle and lower classes, 5,000,000 ; the population of the country parts, 45,000,000 ; the wandering tribes, 500,000 ; the inhabitants of the trans-Caucasian possessions, 1,400,000 ; the kingdom of Poland, 4,200,000 ; the grand duchy of Finland, 1,400,000 ; and the Russian colonies in America, 71,000. At the accession of the Emperor Nicholas, the census then taken only gave a population of 51,000,000. This large increase in the space of thirty years may, however, be readily understood, when it is considered that the Russian territory has now an extent of 22,000,000 of square kilometres (a kilometre is five-eighths of a mile), and a length of coast of 27,000 kilometres. If the population continue to increase in the same proportion, it will, by 1900, amount to 100,000,000. The Russian empire, according to the same document, contains 112 different peoples, divided into 12 principal races, the most numerous of which is the Slavonian, including the Russians properly so called, the Poles, the Cossacks, and the Servian colonies of the Dnieper. These populations inhabit the finest and the most important provinces of the empire."

Statistics of the Population of the Russian Empire; Increase of the Population; Remarkable Fecundity of the Females

We borrow from the *Preuss. Medic. Verein. Zeit.* 1855, No. 28, the following statistical results relative to the mean duration of life in Russia, and to the increase of the population. In a population of 67,000,000, in the year 1853, we find that there are 2,782,636 births, and 1,950,132 deaths. Of these deaths 26,200 only took place beyond 50 years; 2,181 beyond 90 years, and 130 above 100 years; 7 from 125 to 130 years; and in the government of Pskow a man attained the age of 145 years.

The facts relating to the fecundity of women are so marvelous, that they might well inspire doubt, if they were not accompanied with so many details. We read in the *Magazine of Natural History*,

etc. of Moscow (4th part, p 80, 81), the following fact: On the 21st of March, 1755, the peasant Kirilow was presented, along with his wife, to the empress. This peasant was married for the second time at the age of 70. His first wife was brought to bed 21 times—4 times of 4 infants at a birth, 7 times of 3 infants, and 10 times of twins—in all 57 children, then alive. The second wife had already been delivered 7 times, once of triplets, and 6 times of twins—in all, 15 living children. This astonishing fecundity has been observed in other cases in Russia. Thus the peasant Gastorowa, of the village of Dolgom, was delivered on the 1st of March, 1854, of 5 infants, two boys and three girls, who all died the same day. At Torgowa the wife of a Kalmuck had a quadruple birth; one of the children died the next day. In the village of Iwokina, 26th May, 1854, a peasant had a quadruple birth, all the children surviving; and in November, 1854, another similar birth is recorded in the government of Vladimir. Many other examples are given.—*Gaz. Hebdomadaire*.

The following anecdote of the celebrated Surgeon of the Empire, we take from the *Edinburgh Medical Journal* for July:

Larrey, the Soldier-Surgeon.—If there is any man of whom the Pyrenees may be proud to have given birth, it is he who was pronounced by Napoleon I. to be the most honest man in his empire. Endowed with a noble heart, vast intelligence, and a vivid imagination, Larrey was indeed worthy of the friendship given to him by the greatest man of modern times. His name, too, holds an equally distinguished position at the present day, not only among men of science, but amongst all who are the benefactors of humanity. "If ever the army raises a column of gratitude," said Napoleon, "it owes one to Baron Larrey." This debt has been paid; the government, the army, all France, has joined in the national labor of love, and the truthful bronze now recalls to us the venerated traits of him whom we may justly term the father of French military surgery; for, from Ambrose Paré—of whose illustrious memoirs but an incomplete fragment has been transmitted to us—up to the first revolution, medicine was in its infancy. In the first days of the republic, everything had to be done; it was necessary to create, to organize; and the genius of Larrey alone was capable of this immense undertaking. Formerly our wounded soldiers were carried to a distance from the field of battle to receive the surgeon's first attentions; and many, too many, alas! died before they traversed the route to the ambulance. Larrey, seeing the insufficiency and danger of this system, at once ordered that the wounded soldier should be cared for, even under the fire of the enemy, and that the military surgeons should share with their comrades the danger of war; from this

arose his system of ambulance carriages, containing every necessary provision for acting on the spot. From this time, too, the French army surgeon, who had before been considered a sort of accessory to the army, gained definitely his place of honor on the field of battle. Larrey formed one of that phalanx of *savants*, who accompanied Bonaparte to Egypt; he was the friend and rival of Baron des Genettes, who immortalized himself by his heroic conduct among the plague-stricken at Jaffa. In this rough and laborious campaign he rendered such services to the French army, that this page alone in his life would have served to hand his name down to posterity. Later, in all the capitals of Europe, his voice was heard among scientific men, and philosophers of all nations came to listen to his instructions. Even kings honored him with their friendship. After the coronation of the Emperor, when that great captain wished personally to distribute the star of the Legion of Honor, he told Larrey that he intended to name him commander of the order. But although a surgeon-in-chief, he would not receive alone this distinction; and he told the Emperor that he would not accept the honor, without Baron Percy—another eminent surgeon—were accorded the same favor. Napoleon yielded, and the two representatives of French military science were thus named at the same time commanders of the Legion of Honor. This fact pictures the character of the man. Above all else a man of heart, he always remained pure and independent among the courtiers, who only echoed the opinions of their master. It was not obstinacy, but a free spirit and truthful disposition. Let us see what he did at Esling, when the French army was surrounded, and want began to be felt, even in the ambulances. He told them to kill his own horses, and upon his responsibility to sacrifice a great number of those of the superior officers, to make *bouillon* for his sick and wounded. The indignant generals, of course, demanded reparation against Larrey, and the Emperor summoned the surgeon to his presence. "What have you to say to this accusation?" said he. "Sire," replied Larrey, "the sick are my children; I owe to you an account of their lives; under these circumstances, I but did my duty. Besides, of what do these gentlemen complain; they have a horse each left, while I have killed all mine!" What could Napoleon do? He could not be angry; he pardoned the man for his intrepidity and honesty. When the harassed and maimed relics of the Grand Army were crossing the bridge of the Beresina, not one stayed to save his general, his friend, his father, not even to preserve his flag. Suddenly, on the middle of the bridge, a buzzing whisper ran through the crowd—a name is pronounced—hands are stretched out—a man is passed from arm to arm with all the care affection can suggest—that man was Larrey? After the battles of Lutzen and Bautzen, a number of soldiers were wounded in the hand by ill-constructed weapons. At the same time treason was suspected in the camp, and the gloomy mind of Napoleon saw in this a fresh proof of it. He summoned his generals to a council of war; they confirmed his suspicions, and, furious with jealous rage, he ordered Larrey to draw up a report upon the mat-

ter. Larrey presented it, and the Emperor paced the tent in great agitation, digging up the turf with the end of his cane. "These men are guilty," he said. "They are not, sire," replied the intrepid surgeon; "the accusation of treachery is a calumny for which you will have to account to history." "Begone," said the Emperor, "I will make you know my pleasure." Larrey, calm in the security of a good conscience, retired, satisfied that he had done his best to save the lives of the innocent. A few hours passed, and at last Napoleon summoned him. "Thank you, Larrey," said he; "alas! why am I not always surrounded with men like you?" Bonaparte spoke truly; if he had only been advised by men of such energy and greatness of heart, in the days of his misfortunes, he might never have fallen. We must return to Larrey at Waterloo, where he had gone to assist at the obsequies of the Empire. His horse was killed under him; he was wounded in two places; he was crushed on the ground among the flying crowd; they had made him prisoner, and the Prussians were on the point of shooting him, when one of the enemy's surgeons, an old pupil at Vienna, recognized his old teacher, and hastened to apprise Blucher. His life was saved, and a guard of honor escorted him to the French frontier. They could scarcely do less for such a man. After the Restoration, he retired into the shade, shut out from the Court. Surgeon-in-chief of the hospital of the Guard, he had neither distinctions nor honors; he was neither Peer of France nor Grand Cross of the Legion of Honor; he had almost forgotten the road to the Tuilleries of the Bourbons. One day a guard presented himself to him with a letter of recommendation. "What do you wish?" said Larrey. "I would like to be corporal, Monsieur le Baron." "Alas!" replied the surgeon of the Emperor, "I have made generals in my time, but to-day I don't know whether I have interest enough to make a corporal." In 1830, the hospital of the Guard was on the point of being attacked by the mob; the authorities were unable to check them, when Larrey appeared and said: "My friends we have only sick people here; every good Frenchman ought to respect *this* asylum." The crowd instantly retreated with a round of applause to the gallant veteran. He was an old man, still active and energetic, however, and he felt that but a few years separated him from the tomb, when an irresistible desire seized upon him to revisit Africa, the scene of his earliest labors. The government yielded to his request and he set out. His journey across the African provinces was one continuous ovation, an immense triumph; and his son, a *savant* worthy of the great name he bears, witnessed how his illustrious father was venerated by the French army. The presentiment entertained by everybody as to the result of climate and camp life upon Larrey, soon realized itself; and on his return to France, he fell a victim to the illness incurred by his devotion. His remains were conveyed to Paris. The Government of July refused the tomb of the Invalides to the captive of St. Helena, but the city of Paris spontaneously awarded a place therein to the citizen who had so well deserved of his country. A crowd of soldiers, *savants*, and people, mingled in

one mournful procession, followed Larrey to his last resting place. His numerous works, conceived as it were, under the fire of the enemy, collected from nature and enriched with ideas the most rare, are mines of information of which France may be proud. Friend of the Emperor, philosopher, a man of excessive energy, noble character, true heart, masculine and imposing in appearance even among the greatest men of the empire, Larrey is worthy of immortality.

On the Death of Charlotte Brontë. Communicated for the Boston Medical and Surgical Journal, by Dr. CHANNING of Boston.

The death of Charlotte Brontë is the saddest fact in a life whose key-note was sorrow, and whose melancholy music filled the very atmosphere in which she lived, and moved, and had her being. She may almost be said to have been baptized in the dark waters of death. Her mother died when she was about five years of age, and, in quick succession, four sisters and her only brother.

It was not a common family, that of Charlotte Brontë. Two of her sisters died young, but lived long enough to indicate that they would have left their mark on their times. The two elder sisters gave the same evidence of their power in written works. Her brother had large intellectual endowment and culture, but worse than wasted all that might have greatly distinguished him. We do not design in this notice of one whose life has been so admirably written by Mrs. Gaskell, and which all readers have read, to review this work. And yet it may not be out of place to say that it is a record of a remarkable person, who in the midst and pressure of severe trial, never failed in duty to herself, and to all whose well being she could in any way contribute. She was small, delicate in person—apparently incapable of effort. Yet she meets, or makes occasion for intellectual, moral and physical action, which in its detail astonishes us by its rarity, and still more by its success. She writes with startling strength—brings before you men and women, her own creations, and reveals what is in them, both in their word or work, in language and act which leaves little ground for question. She goes to a foreign country, of different language from her own—goes alone, by the guidance of the same instinct which always accompanies a true object, and accomplishes all she attempts. She writes, and while her manuscripts are gathering dust on the publisher's shelves, she writes on, nothing daunted, and at length comes forth as an author, and declares, anonymously, her gigantic power. "Who wrote *Jane Eyre*?" is the question "Not a man," says one, "for a man would not"—"Not a woman," says another, "for a woman could not."

Pardon us, that we have for a moment deviated from our purpose

—to speak of the death of Charlotte Brontë. We could not but say a word of a life so sad as was hers, and for the reason that in an event which was to her an unmixed felicity, she found death. Sadly, in deep sadness, do we ask, was it not a fitting coronation of such a genius, and such a life?

Charlotte Brontë married late in life. Her father opposed her marriage, and the daughter could not marry the man she so deeply loved, as her marriage must separate her from her father, now more than eighty years of age, and with no living creature of his house but her left. At last her father's consent is given and she is married. This was an event in Haworth. Everybody came to the wedding. Charlotte had been the friend of all the poor. She would traverse, in snow and rain, the wild moors of her home, to carry something for the sick child or parent, or to do something for them. Everybody knew her, and everybody loved her. Says Mrs. Gaskell, "many old and humble friends were there, seeing her look like a snow-drop." Her bridal dress, after a few months, became her shroud.

She became pregnant, and soon after experienced the ordinary symptoms of that state, but which rapidly became morbidly severe. Nausea, vomiting and faintness; and fainting, at first frequent, became at length constant. The sight of food was sufficient to produce them all in most distressing forms. Said one, "a wren would have starved on what she ate during those last six weeks." A physician was called. "He came, and assigned a natural cause for her miserable indisposition; a little patience and all would go right."

From the record, nothing more seems to have been said or done in this case. We copy the following from Mrs. Gaskell, because of its professional interest, and as showing something of the sufferer's state in the last moments of her life:

"Long days and longer nights went by; still the same relentless nausea and faintness, and still borne on in patient trust. About the third week in March (it was early in the new year, 1855, that the symptoms first appeared), there was a change; a low, wandering delirium came on; and in it she begged constantly for food, and even for stimulants. She swallowed eagerly now; but it was too late. Wakening, for an instant, from this stupor of intelligence, she saw her husband's woe-worn face, and caught the sound of some murmured words of prayer that God would spare her. 'Oh!' she whispered forth, 'I am not going to die, am I? He will not separate us, we have been so happy.'"

She died Saturday morning, March 31st.

It is of the professional relations of our subject—the treatment of the signs of pregnancy when morbidly aggravated, that we will now speak. Was the *cause* the *motive cause* of those symptoms which produced death in Charlotte Brontë removed? This question is of great interest. Nearly half a century ago, it was our privilege to attend the midwifery lectures of Dr. John Haighton, in London; and a better lecturer than Haighton is not in our memory. He discussed this question of removing the *cause* of those symptoms, and showed

conclusively that in cases in which other means had failed, and the worst consequences were to be looked for, it was the duty of the physician to remove the *cause*, viz: *to remove the fetus from the womb*. Haighton related his experience, and dwelt on the opposition he had met with in consultations, to such measures as he knew could alone save life. More recently we have spoken with eminent men abroad on this subject, and have met with objections to the practice; or when it was allowed to be proper, it has been after so much evil has been done that there has hardly been any reason to look for success from it.

We have felt it our duty to resort to the measure under consideration, and in every case recovery has been rapid and complete. We have known death to happen when the measure has been rejected by patient or friends, and where all other means have been faithfully used. In one case it was clear that death must occur if things remained as they were, but in which the mother of the patient would not consent to the measure, unless the physicians who advised it would in the first place guarantee its success. The attending physician would not do this; and soon after our consultation we heard of the patient's death.

In another instance, the lady lived in a distant State. She was a clergyman's wife, and of the church of England. She was reduced by nausea and vomiting to excessive weakness, and absolutely could keep nothing on her stomach. It was between the second and third month of pregnancy. The fetus was removed, and in twenty-four hours after, we found her heartily eating solid food, and she was soon well. The operation was performed on the same patient a second time, under the same circumstances, and with the same result. Let it be remembered that this practice was not attempted until full trial had been made of the most approved methods of treatment, and after the best evidence that the disease was rapidly increasing. In another lady, it was not until convulsive movements had occurred in the universal exhaustion, that the measure was adopted. This patient recovered, and this was a second trial of it in the same patient.

We dwell on these cases, because a grave moral question is involved in our subject; and to say that it is only in those cases in which life is clearly in jeopardy, that any physician who deserves the name, would for a moment entertain the question we are considering. It is then as a *remedy*; and only to be used under what we believe are really desperate circumstances.

Whether the cause was removed in Charlotte Brontë's case, or whether she died of pregnancy, we know not. We know not what was the limit of that "little patience, when all would go right." But as the disease continued unrelieved till death, may it not be asked if the *cause* of that disease did not remain undisturbed till it became the cause of death? The question is put, because in no like case which has come under our care, however unpromising, has death occurred after the removal of the contents of the womb.

Statistics of Placenta Prævia. By Dr. SCHWARZ.

Dr. Schwarz of Fulda, in Hesse-Cassel, having heard the frequency of placenta prævia stated in a medical society as far greater than he had hitherto believed it to be, examined in reference to this point the official returns made by the Hesse practitioners. These were supplied by 150 accoucheurs, during a period of 20 years, i. e. from 1835 to 1854 inclusive. They related to 519,328 births, and among these were only 332 cases of placenta prævia—the number varying from 8 to 28 per annum. Of these 332 cases, 246 women recovered and 86 died: 251 children were born dead, and 85 were born living. In 40 instances the women were primiparous and in 292 pluriparous. Podalic version was performed in 259 cases, and cephalic version in 7; while in 23 instances the children were removed by the forceps, in 6 by craniotomy, and in 13 by post-mortem Cæsarian section. In 8 instances the placenta was removed, and in 16 the plug was resorted to.—*Monatschrift für Geburtskunde.*

Catamenial Gonorrhœa and Syphilis.

Mr. Frederick C. Skey, Surgeon to St. Bartholomew's Hospital, has recently lectured on Gonorrhœal Rheumatism. The London *Medical Circular* gives us the lecture, from which we make the following extract, bearing upon a point of great interest:

I saw some time ago another most remarkable case of this kind—the splitting in pieces of a family might have occurred from the railery and ignorance of the hospital surgeon, but he could not see it. A respectable-looking married man came with this catamenial gonorrhœa; he was very much puzzled about it, but the surgeon laughed at him: "So ho, my fine friend," he said, "you've simply gone and done it, you've been with the girls." The man said not,—that from the nature of his business it was impossible. "Then some one has been with the girls or with your wife, for you have the bad disorder—that's the short and long of it." The man protested, till at last he swore an enormously large oath at the ignorance of us all. "Why. I have committed as many crimes as many men, and why should I be such a fool, if I wished to be cured, as to say if I had, that I had not had intercourse with a woman." I don't believe he had, but that it was one of the dozens of cases where the irregularities of married life had given rise to a gonorrhœa or blenorrhœa, that I defy you to distinguish from common gonorrhœa. I say there is a "tertium quid" engendered during the period of ovulation or menstruation in the female, that may give rise to gonorrhœa, but I do not believe in syphilitic inoculation. If you know how to treat rheu-

matism you know a great deal also of this disease. Mr. Abernethy, as I said, already went to the threshold on the subject, as regards "rheumatic gonorrhœa," or what you will see copied in the books and manuals as gonorrhœal rheumatism. Evans and Rose and Hennen, away from the coteries of London, settled the thing for ever. You are probably aware, the prostitutes in France are all examined at stated times, and are furnished with clean bills of health? Well, Evans saw several hundreds of these women examined, and only three were diseased: but he had 153 soldiers under his care at that moment with syphilis! I say how did these 153 soldiers become diseased from three women? How did they get it? Where was it to come from? To my mind, now, it is as clear as that chloroform will produce insensibility, or any other fact in surgery; they got it from the clean women and not from the diseased. I told you of Torres Vedras. This army was inaccessible for a long time, and dozens of officers had intercourse with the couple of girls dancing at the theatre. These girls, mind you, in good health, yet shoals of these officers came to England with bad phagedænic sores. Do you think they got phagedæne directly, as Mr. Hunter would think, from these girls? I don't.

Well, I'll tell you another case, and within a very short period of the present—not to go back to Torres Vedras or Waterloo, or tire you with what you will find decked out in the books of the schools—the case of a lawyer. [I am glad it's a lawyer, if it must be somebody—(laughter)—lawyers are so wedded to do nothing if erroneous to the decision of their judges.] It was, in a word, the counterpart of the first case—seduction—love (the old story)—seduction, gonorrhœa, and a crop of sores. I examined the lady with the utmost minuteness. I sifted this case carefully. I believe there was no disease whatever in the lady nor in the gentleman, previous to the occurrence. Yet all the—what shall I call it—legal evidence was the other way. Legal proof on medical subjects at present is the greatest absurdity under Heaven; because well-bound books on surgery say one thing to a man with a wig and gown on, and because a surgeon's opinion, which is not only *viva voce* and original, but fairly worked out after thirty or forty years' analysis of facts and cases in hospitals, must be thrown to the winds, in favor of the *dictum* of some old book, or some new book copying the old.

I say this material syphilitic infection is all a fallacy. I don't believe either in all that black letter lore of syphilis coming from St. Domingo with Columbus in the 15th century. Gonorrhœa is detailed in our oldest and most sacred of books.

Mr. Skey next stated the particulars of a very interesting case—a case of most frightful phagedænic sores in a gentleman, like those of the officers sent from Lisbon, but where the disease was clearly the result of scrofula, or some such constitutional taint in the gentleman's system, aggravated by those injudicious courses of mercury, ordered for a very simple affection at first. The case was one, also, where the hymen was ruptured for the first time, but not a trace of disease existed in the lady.

"This old mercurial school, however, still holds out," Mr. Skey continued to say, "I am sorry that even men like Sir B. Brodie still belong to it; it is not true that a woman who will allow one man to her embraces will allow any other; and if the disease be checked by mercury—*post hoc*, &c.—that we should go on giving it! In this last patient it made all this difference; that whereas Rose, or Evans, or Carmichael would have cured this gentleman without mercury; in following the plan of the older schools, he was at the point of death, owing to the mercury, under the first advice in London, affecting the membranes of his brain. We shall not speak of the hideous mutilations of face and nose, the time sacrificed away from business on the sick list, and the marks which rupia too often leaves on the forehead and face. I am satisfied, and you will be so, too, when you see some practice, that all this old-fashioned dosing system with mercury is bad. I would almost go so far as to say, that the very worst cases of syphilis, so called in men that I have seen, have been the result of something wrong with the man rather than with the woman; and where the "*tertium quid*" was aggravated by this system of giving mercury, as a piece of murderous old routine in all cases alike!

Well, a few words now as to gonorrhœa and rheumatism. Is there such a thing as spontaneous gleet? Yes—it is a catarrh of the parts; I know a gentleman who has had gleet; but he has been several months, aye years, in bed for another disease, and he had no possible manner of getting gleet.

You will find gonorrhœal rheumatism is eccentric gonorrhœa; mostly in oldish people, the disease mild or the opposite, fond of fits and starts or aberrations; it is gonorrhœa in a rheumatic system, but not rheumatism connected as a secondary symptom or as cause and effect with gonorrhœa. I am satisfied gonorrhœal rheumatism and gonorrhœa are children of one parent, and not related as rheumatism the child of gonorrhœa—the parent.

I will now tell you more: I have seen *every form of syphilitic disease* as obtained from healthy women. These cases occur in the better ranks of society, with men who are above suspicion. What is sometimes shocking in a moral point of view is of the utmost value to us pathologically. But I must not dwell on these cases. The gentlemen come to me expressing their unbounded astonishment, yet if you make the most careful search, even with the speculum, there is no disease in the lady, it would be almost a relief to one's mind to find something, but there is no disease whatever. No! it is all fallacious.

Statistics of the "Umbilical Cord." By Mr. BEALE.

"On looking over a record of midwifery cases attended by myself, I was atonished at the number of times in which the umbilical cord

was found encircling the neck. In 1,220 cases, it was once wound round the neck in 175, twice round in 32, and thrice round in 7 cases. In 1 case, the cord was crossed over the chest and back, and looped under both axillæ; it measured 58 inches in length. In 3 cases there was a single knot on the cord, and on one funis were two knots. Dropsy of the cord occurred once, increasing its breadth to two inches, and rendering it very tortuous. The shortest cord was five inches in length. (In Dr. Rigby's 'Midwifery' there is mention of a case in which it was but two inches long, and another in which its length was 61 inches, *vide* page 182.) I did not notice any unusual retardation of the labors in those of my cases to which I have referred, only more or less lividity of the neck and face, according to the time spent in the head passing into the world.

"These cases give, as the average, about 1 in 5 in which the cord is so coiled. It seems surprising that in cases of alleged infanticide the plea of death being caused by the pressure exerted by the funis (without help) has not been seized upon to any extent by the counsel for the defence, for such a liability must tend to diminish the chances of life. These cases, however, rarely go beyond a charge of concealment being sustained."—*Medical Circular*.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Elements of Pathological Anatomy. By SAMUEL D. GROSS, M. D., Professor of Surgery in Jefferson Medical College, Philadelphia, and formerly Professor of Pathological Anatomy in the Medical Department of Cincinnati College. Third Edition, modified and thoroughly Revised. Illustrated by Three Hundred and forty-two Engravings on Wood. Philadelphia: Blanchard & Lea, 1857, pp. 771. (For sale by Riley & Co.)

As stated above, this is the *Third* edition of Professor Gross' work on Pathological Anatomy. The *first* edition appeared in two volumes; the *second* consisted of a single volume; the third, the one before us, also of a single volume.

The present differs from its predecessors in several respects. The author states that it has been materially modified, and fully brought up to the existing state of the science of which it treats. Much that

related to Histology and Diagnosis in the preceding edition has been omitted, while no inconsiderable amount of new matter has been added; and where it was necessary the language has been rendered more "concise and terse." Besides, there have been introduced one hundred and thirty new cuts, drawn for the most part from the Author's own specimens, and engraved under his superintendence.

The dedication of the former editions was to Daniel Drake. This the Author has not thought proper to change in the one before us. Side by side he and that uncommon man labored for years in schools of the West in the cultivation of the science of which this volume treats, and hence what more praise-worthy than this evidence of a disposition to perpetuate tokens of regard.

The work is divided into TWO PARTS.

Part 1, consists of twenty chapters; part 2d of twenty-seven.

Part first, discusses the *General Principles of Pathological Anatomy*; part second, *Special Pathological Anatomy*.

With regard to the merits of this work there can be no diversity of opinion. It is a condensation of what is accredited as knowledge in the department to which it relates. It is not founded entirely upon the observations of the author, for this would, as with any other work of the kind, have impaired its value as a *resume*; but upon the trust-worthy researches of most who have labored avaiably in the department. The Author occupied the Chair of Pathological Anatomy for four years in the Cincinnati College, during which time the materials for the body of the work were in part collected. Since that time he has, as we see, been careful to watch the progress of his subject both at home and abroad. This has made it necessary to re-write much of the work in order that it may conform to the latest discoveries and most approved reasonings.

A feature of the work with which we are pleased consists, where the subject is of importance, of a brief historical outline of its progress, and a statement of the opinions of those who have in early times given it their attention. On the old and hackneyed subject of *Inflammation*—a process that is yet not exhausted—it is amusing to see the diversity of opinion. With some it constitutes the whole subject of pathological anatomy; no process of which it is not the leading, controlling element. Indeed, the conservative and cautious, allowed it to figure so largely, at one period, as to run them into a practice almost mechanical. Then, again, on the nature of the process how widely different, or rather how opposite, have been the

views? While the capillaries have been regarded as its seat by pretty general consent, one would have these affected with spasms or paralysis; another with inertion, and a third with an excess of mobility. Bennet would say that it is a deviation merely from healthy nutrition; Leibig would say it is the result of an unusually rapid union of the oxygen of the arterial blood with the tissues of an inflamed part. Then, again, there are some who ignore the term inflammation altogether, referring all the phenomena to congestion *hyperæmia*, etc.

Such thinking with reference to the most general of the abnormal processes shows the difficulty of comprehending subjects of pathology. Reasoning on the process, no doubt, first led to its location in the capillaries. But after this, it was the blind leading the blind. To understand the matter the aid of the Microscope was required.

The Microscope confirms the old doctrine of the capillaries being the seat of the first changes that take place in inflammation. It goes on to show that there is *increased* motion or determination of the blood to the affected part as the first stage of the process. This is succeeded by distension of the capillaries and stagnation of the current. The stagnation seems to be due to several causes. 1. The *white* corpuscles, from their greater cohesiveness, become attached to the walls of the vessel in quantities that block it up, thus preventing the *red* corpuscles—the oxygen carriers that occupy the more central part of the caliber from passing the accustomed route. 2. Late researches seem to show that the walls of the vessel of an inflamed part becomes affected so as to give off *cells*, resembling the *white* corpuscles of the blood, except in the circumstance that the cell wall is deficient, and hence their more adhesive property. 3. The exosmosis and osmosis of the *red* corpuscles, by which they too become unnaturally adhesive, and thus co-operate with the *white* in the process of obstruction. 4. Not only altered affinities between the particles of the blood, but between these and the walls of the vessel do much in producing the stagnation. We have, therefore, in an inflamed tissue increased and diminished action, and a process of cell-formation set up in the part, together with altered affinities.

All of these conditions point to a pathological process, which can only be understood by interrogating them separately. They also indicate why the process is so destructive to structure, as well as to function.

The Author's extensive acquaintance has enabled him to collect from practicing physicians quite an amount of indigenous experience, rare in character and of high interest. Under the head of *Internal Strangulation* a case is referred to of which we had some knowledge in early professional life. The case was published originally in the *Western Journal of Medicine and Surgery*; and as published is erroneous in a very important particular. It was a case of *Intussusception*, and the subject of it was a boy, 6 years of age, the son of a farmer. He was at first attacked with spasmodic pain in the bowels after eating green currents. Vomiting, arrest of alvine discharges, and fever succeeded. The abdomen became tender, and in the right iliac region a tumor of half the size of a man's fist made its appearance. The cause of the trouble was revealed on the 17th day of the disease, instead of on the 7th, as the *Western Journal* has it, by the elimination of a portion of intestine *twenty-nine inches* long, consisting of the colon, parts of the cæcum, and vermiform appendage. The patient recovered without any unfavorable symptoms; but was for some months liable to attacks of colic, except when his food was properly selected. He lived some 14 years after the accident, working on a farm most of the time, and then, as we have learned, died as seemed from inanition. No *post-mortem* was made. We had removed from the region; and the physician in attendance was not aware of the great importance of seeing how Nature repaired such accidents.

Comparing the present with former editions of this work, several very essential improvements may be noted. The Microscope, the revelations of which received but a passing notice in former editions, in this, figures very formally. A paragraph on "*Microscopical Characters*," is introduced wherever it is regarded as contributing to the full elaboration of the subject; and, in our judgment, this feature adds very much to the value of the work. A treatise on pathology, in these days, that ignores or neglects the Microscope would not meet with a very cordial reception from any one, much less from those who are on the frontiers of science and whose good opinions are most desirable. The truth is the Microscope unfolds Physiology, and Physiology lays at the foundation of pathology. Whoever talked with any sense on inflammation, until the Microscope revealed its nature? Without it, indeed, we should have remained in ignorance in regard to the existence of many diseases; and between oth-

ers would have been unable to make the proper distinctions. The truth of the latter remark is illustrated especially in diseases involving the blood, urinary apparatus, etc.

It is very difficult to get up a book on a Medical subject free from theory, theory too in its most objectionable sense. Facts are prosy things, and in the estimation of many, don't jingle well by themselves. In the first edition of his work the author took the position that *Tubercle is of inflammatory origin*; and gave his reasons, No. 1, 2, 3, etc., in favor of the notion. Now it constitutes no part of our present purpose to attempt a formal refutation of the reasons the author has posted up in favor of this dogma. We will however transcribe the substance of them, and offer a remark or two on their validity.

The doctrine of the inflammatory origin of tubercle, the author thinks is established: 1. By the chemical composition of tubercle, which consists of albumen fibrin and gelatin; substances that if found on the surfaces or interstices of organs, are to be regarded as the result of inflammatory irritation. 2. Tubercular matter bears a great resemblance to cacoplastic lymph which is an acknowledged product of inflammation. 3. Tubercular deposit is often excited by cold and moisture conjoined, and by unwholesome indigestible food. 4. The disease is often attended or preceded by congestion or hyperæmia. 5. The doctrine of the inflammatory origin of tubercle derives plausibility by what occurs in inferior animals from mechanical irritation; tubercles being produced by the dropping of mercury into the trachea. The same results are witnessed in miners, needle grinders, etc. 6. Scirrhus encephaloid and other carcinomatous growths are of inflammatory origin. 7. There is no appreciable deposit, secretion or effusion in any of the shut sacs, cells or cavities of the body, which is not the result of inflammatory action.

An author is often so deceived with his own reasonings when he has been in the habit of repeating them frequently that he cannot see their sophistry until there is an analysis made and the terms reduced to the elementary form.

The proposition, that tubercle is of inflammatory origin is sustained the author thinks by all the reasons above enumerated. As a sample of the way he sustains his doctrine, take one or two for the purposes of analysis. The argument as stated would stand thus:

Tubercle is of inflammatory origin,

Because it is often excited by cold and moisture conjoined.

Again tubercle is of inflammatory origin,

Because scirrhus encephaloid and other carcinomatous growths, are.

The form of these arguments it will be noticed is that of *enthymemes*, an abridged form of the syllogism, where the *conclusion* and only one of the *premises* are expressed. In each one of the above examples the *conclusion* (to wit: that tubercle is of inflammatory origin) is stated, and the reason, one of the premises, (the minor) given afterwards. There is therefore in the mode the author has chosen for the expression of his argument a *suppression of the major* premise. This needs to be supplied and the premises arranged in the regular categorical order to see the force of the argument.

We will now state one of the author's arguments, the third, in its regular form, supplying the major premise.

All diseases produced by cold and moisture are of inflammatory origin.

Tubercle is produced by cold and moisture, therefore

Tubercle is of inflammatory origin.

Now is this major premise (all diseases produced by cold and moisture conjoined are of inflammatory origin) in the above example true? It should be true to make the reasoning of the author valid. It is however a mere assertion. Cold and moisture conjoined are very capable of producing inflammation. But this by no means is their *universal* effect. They occasion disease most frequently by suppressing or interrupting the functions of the skin. The matters usually eliminated by this organ have to seek an outlet through some other or be retained in the circulation. But is this condition of things inflammation?

We have a few cases on hand just now of *scarlatina* in the stage of convalescence; two of the patients are effected with anasarca swellings. We suppose this complication due mostly to cold damp air acting on the surface by which one of the outlets of water from the system is for the time suppressed. Are these dropsies inflammatory in nature?

The sixth, for example, proves something else, rather than the proposition in debate. The author in this undertakes to prove that tubercle is of inflammatory origin, because scirrhus, encephaloid and other cancerous growths are. This is strange logic. Does it follow that because a disease can be found that is of inflammatory origin

that therefore others are, or tubercle is? This looks like a *petitio principii* — a supposed proof by stating the question in other words.

We might allude here to another mode of testing the truth of reasoning. The author's proposition is that tubercle is of inflammatory origin. Now does the negative or contrary of this proposition involve either an absurdity, or an impossibility? We think not. A proposition the very opposite of that of the author is far from being an absurdity, far from being impossible.

The doctrine of the inflammatory origin of tubercle gave rise to a corresponding practice — depletion and antiphlogistic drugs, when this doctrine obtained, made up the treatment for tubercle. But how has the theory been confirmed by the results of practice? Is there a medical man now living who would either bleed or give drugs which waste strength in treating a case of genuine tubercle? The truth is remedies exactly opposite in nature, are now, not only the fashion, but, unless observation is very much at fault, are the most available. Stimulants, rich food and oils, together with proper ventilation of the blood possess just now a monopoly of confidence.

Early impressions are hard to be eradicated. The author was educated in the days when inflammation figured in the minds of the leading men in almost every pathological process, and he imbibed mental tendencies, as a consequence that now 'crop out' rather unseasonably. Rush could generalize and say that disease is a unit Broussais, that gastro-enteritis lays at the foundation of most fevers; but the days for dogmatisms are past — theories are at a great discount. Utilitarianism and the love of facts have got into literature, and our writers will have to govern themselves accordingly.

We close our notice of this book with reluctance. We can spare to it at present no further attention. While it contains a few of the foibles incident to authorship, it contains also a very complete summary of knowledge on one of the most useful branches of medicine, well arranged and handsomely expressed. As a hand-book for the student it will take a high position; and the experienced practitioner may also consult it with advantage.

Manual of Physiology. By WM. SENHAUSE KIRKES, M. D., Fellow of the Royal College of Physicians, Assistant Physician to and Lecturer on Botany and Vegetable Physiology, at St. Bartholomew's Hospital. A New and Revised American from the last London Edition. With Two Hundred Illustrations. Philadelphia: Blanchard & Lea. 1857. pp. 584. (For sale by Riley & Co.)

The primary object of the author of this work has been to furnish something in the way of a *Manual*—a *Handbook for Students*. As a consequence, it omits all discussions of unsettled questions and expressions of personal opinion, referring the student to works in which these may be read, and by which the study of physiology in its widest sense may be pursued.

This volume is what it purports to be, a manual for students, containing the cream of physiological science very well arranged. During the period of receiving an education it will prove to be more available than larger works of the kind.

Principles of Medicine. *An elementary view of the Causes, Nature, Treatment, Diagnosis and Prognosis of Disease—with brief remarks on Hygienics, or the Preservation of Health.* By CHARLES J. B. WILLIAMS, M. D., F. R. S. A New American, from the Third and Revised London Edition. Philadelphia: Blanchard and Lea. 1857.

The progress of inquiry has had the effect to show a very close relation between physiology, chemistry and pathology. The healthy body, its constituents and functions, when properly understood, must be the foundation of all philosophical views with reference to pathology. We must know what the machine is, the materials of which it is composed, and the movements of these, if we would know when a screw gets loose, or when a wedge drops out.

One of the things that we have inherited, and that has adhered to us with great pertinacity, is our habit of regarding diseases as independent entities, as processes capable of maintaining an existence without reference to the standard of health, of which they are but deviations. We might trace these irrational dogmas back to the times when certain chronic maladies figured as witches, evil spirits, devils, etc., and when some old women, or the gods, had to be invoked for their expulsion. Such times have, in a measure, passed

away; but we are not yet completely out of the fog. All the conditions of health must be understood. Structure, chemical composition, vital composition and endowment, together with functions and affinities, before departures or deviations can be recognized. Progress has been such that it is now regarded as philosophical "to place the practice of Medicine on a footing corresponding with Physiology, Chemistry, and other sciences, which equally depend on the accurate observation and rational arrangement of facts." There was a time, for example, when our information was very crude in regard to diseases of the blood—when all that we knew of the diseases of this fluid was expressed by the phrases, *pale blood*, *dissolved blood*, *putrid blood*, etc. The constituents and their proportions in the blood being now understood, we speak of the *excess*, *defect* or *altered state* of the red corpuscles, colorless corpuscles, fibrin, albumen, fatty and other combustive matters, saline and mineral matters, water, etc., as diseases, as variations from the standard of health; and upon the view taken, a system of practice is instituted, with the results of which there is every reason to be pleased.

PART FOURTH.

EDITORIAL AND MISCELLANY.

NATURE AN ART IN THE CURE OF DISEASE.—Most of our readers doubtless recollect the appearance in 1845 of certain well-written articles on Homœopathy, Hydropathy, Allopathy, written by Sir John (then Dr.) Forbes—Fellow of the Royal College of Physicians, etc., etc. The same mind from which these articles emanated, has lately given birth to what he is pleased to term, "*A Legacy to my Younger Brethren*," the object of which appears to be to consider the influences of *Nature* and *Art* in the cure of disease. Being now full of years, and having an enlarged experience, the author, it seems, is conscientiously impressed that it is a duty he owes to his "younger brethren" to give them a piece of his

mind on the mode of curing disease. This is a laudable impulse ; and we owe to it, to the age of the author, and to the high position he has occupied, and still occupies, respectful consideration. An experience of *fifty years* is seldom unprolific, and least likely to be so when united with acknowledged ability, as in the instance before us. All feel like uniting in the wish that the last work of an individual who has been an industrious observer and author, should be successful. Entertaining this feeling, almost any one would have suggested for Sir John Forbes a different field of labor than the one he has chosen for the last efforts of his genius. His subject, *Nature and Art* in the cure of disease, is as old as sophistry in Medicine, and by the ancient authors has been presented in a variety of phases ; and so far as we can see, they have exhibited as much ability in its consideration as has the author of the "*Legacy*." Early in the eighteenth century speculation reached the point of forming a separate system of medical practice, founded upon the autocracy of Nature to remedy her own troubles. It was brought forward by Dr. Stahl of Germany, and denominated, "*Ars sanandi cum expectatione*" —the art of curing disease by expectation. The reasonings given in support of the theory we transcribe for the benefit of those who love the mysterious and fanciful rather than the slow inductions of science :

"The motions and functions of the human body are governed entirely by the *Rational Soul*, to many of the motions of which it is not conscious, owing to a habit of action and not to the physical mechanism and irritability of the living solids. The *soul* being extended through the medium of the nerves to *all parts of the body*, perceives every noxious impression or disorder that occurs in the system ; and like a faithful guardian, calls such powers of the system into action as are qualified to remove or obviate the noxious impressions, and to preserve its salutary operations."

After suggesting the use of preliminary measures in the treatment of diseases, such as would at once occur to the mind of every well educated physician, Sir John directs as follows :

"Applying these measures under a watchful supervision; *not to attempt by any vigorous measures to alter the course of the morbid processes so long as they seem to keep within the limit of safety*, and when they transgress, or threaten to transgress this limit, *only then endeavor to modify them by such mild measures as*, if they fail in doing good, cannot do much harm."

Between this doctrine, and that of the German Stahl, above no-

ticed, there is, in substance, no difference. Both lead to the same practice, the expectant—an expectation that Nature is competent to cure the disease—an ignoring of the use of drugs.

An “out and out” new theory, if ingenious in part, and mysterious in most, would very likely have had a run. But for an old one, revamped, there is but little taste in the public mind. From the reputation of Sir John, it might, *a priori*, have been inferred that his genius would have been equal to the task, where, as in medicine, there is so much latitude, of elaborating something that at least had the appearance of novelty. The resurrection he has made of a skeleton, fossilized, and belonging to a period when the human mind, so far as medicine is concerned moved very irregularly, is unworthy of him.

The *armamentarium medicorum* embraces *regimenal* and *medicinal* treatment.

About the former there is no question. The use of baths, hot and cold, ice to the surface, and ice drinks, poultices, fomentations, mucilaginous drinks, commend themselves so unequivocally that no one in their senses doubts their availability. It is against *drugs* that the objections are made. Here we find the want of confidence. This brings up the question: Have we any substances capable of actually curing diseases? The *modus operandi* of medicines—how they operate in the cure of disease, ought not to be in issue, for there is no way by which such a question can be solved. The old doctrines that they do so by acting on the solids, or on the fluids, or through the nervous system, is as foreign to the inquiry as the recent one, that they do so by correcting derangement of atoms of a diseased structure, or of adding them when deficient, or of subtracting them when in excess. Nor has the theory, so popular in our day, that medicines act by assisting Nature—any necessary connection with the matter in hand. No one can tell, whether, when a medicine enters the body, it goes to work to expel or neutralize the views on “its own hook,” or enters into a copartnership with Nature to accomplish the same end.

No one denies Nature’s competency to cure many diseases. But is it any less certain that drugs possess positive curative powers? Take, for example, the use of iron in chlorosis. We have here, among other things, a deficiency of red corpuscles in the blood; it is a disease of the blood. After Nature has battled with it for months, it often seems that the only effect is, that it gets more deeply entrenched. Iron is administered, and the healthy glow of the cheek

soon announces amendment, and after a while the patient recovers. We have a case of intermittent fever—a regular ague. After its cycle of changes are once well inaugurated, the tendency in many instances is, that the disease persists, and so gains over the powers of Nature as to become almost “second nature.” Months, and even years, are often consumed in this way, the chances of getting rid of the disease by the curative powers of Nature being in an inverse ratio to the length of time the disease has run. In such a case twenty grains of quinine, nine times in ten, produces a cure. How the drug accomplishes the object no one in the present state of sciences can tell. It is the circumstance that *it does it*, and that too without leaving any room whatever for doubt, that interests us in the present connection. Take another example: We have a case of violent Gastralgia. A dose of morphine gives almost instant relief. A sufferer in great anguish is relieved in almost a moment of time.

Innumerable instances of the same character might be adduced showing up in an equally strong light the fact that the Creator has placed in certain substances properties which *cure* disease. But, says the reader, why insist upon a matter acknowledged to be true from time immemorial? We reply, because it is skepticism here, a want of confidence in drugs, that lays at the foundation of all the efforts, including those of Sir John Forbes, which attempt to limit the treatment of disease to the resources of Nature.

Every physician of properly balanced faculties when he encounters a case of disease, will revolve in his mind at once the fact that his means of cure come from one of two sources, from Nature or from Art. If the case is of mild character, or self-limited, he will expect nature mostly to perform the cure. The treatment here will be limited to the Regeminal. If, on the other hand, it is very grave, a sinking chill (congestive intermittent) or an inflammation of some important organ or membrane, he will resort at once to the measures and drugs that the experience of two thousand years has endorsed as efficacious. What would be thought of a medical man in any of our extensive malarious regions who would stand by the side of a patient, that had had one congestive chill and was hourly expecting another, waiting to see if nature would not accomplish a cure? A repetition of such paroxysms are dreaded by the knowing physician; and morally certain that he possesses a drug that will “*put a stop*” to them, he would stand self-condemned not to administer it in *heroic* doses—the only doses proper under the circumstances.

When a case of disease presents itself for treatment, the question naturally comes up in the physician's mind, upon which, nature or drugs, should most reliance be placed for the accomplishment of a cure. Weak minds here go off at once in opposite directions. The one who has paid but little attention to Physiology, to Physiological Pathology, to the powers and resources of nature, to the natural history of disease, will place all his hopes mostly upon the *materia medica*. Another one whose organization and habits have lead him to doubt the testimony of the best observers, that of his own senses, and indeed the severest methods of reasoning, will use medicines as mere "time-keepers," things merely to divert the attention of the patient. Now, a judicious physician will pursue a very different course. His knowledge of nature, having witnessed her in both victory and defeat, his knowledge of the properties of drugs, what can be accomplished by them, and what can not, will lead him to trust what ought to be to nature, and to trust what ought to be to drugs. In some cases, feeling confident of the powers of the system to eliminate the virus, he will do but little ; in other instances, where experience has demonstrated that no such result can reasonably be expected, he will "*take the bull by the horns,*" and throttle him at once.

It is the tendency of all civilizations to become, in due course of time, effeminate—to lose the courage and force of early life. Medicine being an integral part of civilization, it seems, to a certain extent, to obey the same law. There is a marked cowardice growing up in regard to the use of heroic remedies, it matters not what are the emergencies. The term "heroic" originated from the reckless use, or perhaps we might say from the empirical use of large doses. It is now, however, applied to the practice of all those who look upon drugs as competent to subvert morbid processes. Now, if medicine possesses any agency whatever in the cure of disease, a certain amount of it is required, and it is just that amount, whether great or small, whether heroic or infinitesimal, that is proper. Enough must be given to fulfill the indication present or the practice is useless.

We had supposed the professional cup about full, in the way of "systems," "theories," etc. Mostly such troubles have emanated from "outsiders," or those who have never had any standing as men of science. Home thrusts just now were not expected. Of Sir John, therefore, the exclamation may well go forth—*et tu, Brute!*

Cranial Characteristics of the Races of Mankind.

J. AITKEN MEIGS, M. D., Philadelphia, has furnished for the late work, "*Indigenous Races of the Earth*," a chapter on *Cranial Characteristics*, in which he proposes the following questions: "What is the nature of the skull as a whole, and what is the nature respectively of its different parts? Why should it be composed of 22 bones and no more? What is the meaning of the *sutures* and what their relation to individual and race forms of the skull? What are the relations of the cranium to the bony skeleton, on the one hand, and to the delicate organs of thought and sensation which it encloses on the other? * * * * * When has it attained its full growth, and what are the evidences of this fact? Is this period the same in all the varieties of men? Does the cranium form the brain or, vice versa, does the latter mould the former to itself? What are the relations of cranial form to mental and moral manifestations, to capability of civilization and actual progress in art, science, etc. Is there one; or are there many primitive cranial types or forms; if one, how have originated the distinctions we now perceive? If many, what are the distinguishing peculiarities of the primitive forms? Are there peculiarities primordial and constant, or can they be accounted for by the action of external causes? To what extent is the form of the cranium modified by climate, habits of life, age, sex, intermarriage, etc.? Does intellectual cultivation modify the form of the skull? Can acquired modifications of cranial form be transmitted hereditarily? If so, what are the laws of this transmission? Is there for skull-forms, as Flourens has said of races, an art of preserving their purity, of modifying them, altering and producing new ones? Are the leading cranial types which we at present encounter in the human family primary results of certain cosmogonic causes which ceased to act the moment after their formation; or are they the secondary or even tertiary and quaternary results, as Count de Gobineau supposes, of the intermixture of races occurring at periods ante-dating all historical and monumental record?"

Cranioscopy is now a science dating from the time of Blumenback, and as a consequence about 70 years old. On the different departments of natural history we have for a great while had elaborate and expensive works illustrating every thing of importance; and intelligent and scientific travelers have thrown away volumes on dress, arms, ornaments, landscapes and obscure antiquities of races,

while but little attention until of late has been given to the natural history of man. The most useful of all maxims, "*Know thyself.*" "The greatest study of mankind is man," has been ignored to an unwarrantable extent.

Blumenbach commenced the subject of craniology with 55 skulls. The collection made by the late Dr. Morton now embraces 1035 crania, representing more than 150 different nations, tribes and races.

The attempt to place man in his proper relation to other animals began with Buffon and Linæus. Buffon first in merit, but second in order of time. Classical writers, such as Thucydides and Herodotus, intersperse what they have said of matters in general with more or less of ethnographic sketches. Upon the osseous framework, however, these authors bestowed no attention. Their valuation of characters was founded mostly on the color of the skin, hair, social habits, civilization, etc. Cuvier, in his *Regne Animal*, affords the first practical recognition of the Zoological relations of man. In 1828 Blumenbach published the *Decades Craniorum*. This work occupied the field of the comparative craniology of the races of men, and may be regarded as having given the first impulse to ethnographic inquiries. Daubenton also wrote on the same subject. For the study of craniology in profile, we are indebted to Camper, whose name is connected with the *facial* angle. Scemmering called attention to the occipito-frontal arch, the horizontal periphery and longitudinal and transverse diameters of the cranium in order to diagnose between Europeans and Negroes. From Scemmering to Morton quite a number of names might be enumerated, but we have no time to allude in this connection to them. To Morton, Prichard, Lawrence, Retzius and Nelson, the world is mostly indebted for what has given to this young science its greatest attraction. Morton regards the internal capacity of the cranium, the number of cubic inches it measures as a good stand point from which to contemplate races. Prichard divides all skulls into, 1. The symmetrical or *oval*, which is the form of the European; 2. The *prognathous* or narrow, the form of the Negro; and 3. The *pyramidal* skull with the square face which is that of the yellow races, the Chinese, etc. Retzius in an essay on the cranial forms of Northern Europe divides all skulls into long and short. Each of these he sub-divides into straight-jaws, and prominent jaws. The *long heads* with straight jaws embrace the Celtic and Germanic tribes; long heads, prominent jaws, embrace

the Negroes and Australians. The *short heads straight jaws* embrace the Laplanders, Fins, Selaves, etc. Short heads, with prominent jaws embrace the Tartars, Mongolians and Malays.

Among all the modes of getting at the mental and moral capacities of the different races, Morton's seems the most philosophical. The internal capacity of the cranium in cubic inches must, other things being equal, reveal the secret of mental force. The brain is the organ of thought and sensation; the more of it, the more of these endowments.

A table showing the size of the brain in cubic inches, as obtained from the internal measurements of 663 crania of various races and families of man gives the following: Mean of caucasian, 93-5 cubic inches; of Mongolian, 87; of Malay, 85; of Negro, 82. Difference between Caucasian and Negro, 11 cubic inches; between Negro and Malay group, 3 cubic inches; and between the Negro and Mongolian, 5 cubic inches.

The collection shows the Toltecan family, Peruvians and Mexicans, to present a mean below the Negro. Measurements of 152 skulls of Peruvians give a mean of 75-3 cubic inches; 25 Mexican skulls a mean of 81 cubic inches.

Morton thus describes the Greek physiognomy which may be regarded as the type of the Caucasian race:

"The forehead is high and expanded, and but little arched, so that it forms with the strait and pointed nose, a nearly rectilinear outline. This conformation sometimes imparts an appearance of disproportion to the upper part of the face, which is, in a great measure, counteracted by the largeness of the eye. The Greek face is a fine oval and small in comparison to the head. The nose falling strait from the forehead, sometimes inclines to an aqualine form, and is often of more than moderate length. The upper lip is short and the mouth delicately moulded. The lower jaw is not so large as to disturb the oval contour of the face, and the chin is prominent; the general expression, with less sternness than in the Roman, has equal daring, and betokens intellectual exaltation."

The following gives some idea of the cranial characteristics of the Mongolic physiognomy.

"The characteristic traits in all the countenances are eyes of which the great angle, placed obliquely and downward toward the nose, is but little open and fleshy; eye-brows black, scanty and forming a low arch; a particular conformation of the nose, which is generally

short and flattened toward the forehead ; the bones of the cheek high ; the head and face very round. They have also the transparent cornea of the eye very brown ; lips thick and fleshy ; chin short ; teeth very white ; they preserve them fine and sound until old age ; they have all enormous ears, rather detached from the head."—(Prichard.)

Characters of the Negro Variety.—"Narrow and depressed forehead ; the entire cranium contracted anteriorly ; the cavity less, both in its circumference and transverse measurements ; occipital foramen and condyles placed farther back ; large space for the temporal muscles ; great development of the face ; prominence of the jaws altogether ; and particularly of their alveolar margins and teeth ; consequent obliquity of the facial line ; superior incisors slanting ; chin receding ; very large and strong zygomatic arch projecting toward the front ; large nasal cavity ; small and flattened ossa nasi, sometimes consolidated and running into a point above."—(Lawrence.)

While the materials are just being quarried for the first time for the erection of a structure, it would be weakness to attempt to decide either upon the beauty of the building or its durability. Time here is a necessary element. The same may be remarked in regard to ethnography. We have as yet commenced the inquiry ; and many questions pertaining to it are not only not solved, but what is very mortifying will to all appearances for a long time, resist solution. There is no history written by the autochthones of the elder nations concerning themselves to assist in unraveling the men and things of antiquity. The world is reputed, according to bishop Usher's calculation, which is the adopted chronology of Europe and America, to be about 6000 years old. And yet strange as it may seem, there is considerably more than half of this period that is in total darkness so far as what pertains to historical science is concerned.

Not only has man, with almost every thing pertaining to him as he existed in primitive times, been lost sight of, but the names of monarchs and even of dynasties it is believed, are without record any where. The deciphering of hieroglyphics by Young, Champollion, Rossellini, etc., have thrown, here and there, a ray of light upon the general darkness of Egyptian history ; but in regard to the natural history of man, things remain very much as they were.

From the facts and arguments accessible to Dr. MEIGS he submits on *cranial characteristics* the following propositions :

“ 1. That cranial characters constitute an enduring natural, and therefore strictly reliable, basis upon which to establish a classification of the races of men.

“ 2. That the value of such characters is determined by their constancy, rather than by their magnitude.

“ 3. That these characters constitute in the aggregate, *typical* forms of crania.

“ 4. That historical and monumental records, and the remains found in ossuaries, mounds, etc., indicate a remarkable persistence of these forms.

“ 6. That this persistence through time, as viewed from a zoological stand-point, renders it difficult, if indeed possible to assign to the leading cranial types any other than specific values.

“ 6. That in the present state of our knowledge, we are by no means certain that such types were primitively distinct. The Historical period is too short to determine the question of original diversity or unity of cranial forms. Moreover, this question loses its importance in the presence of a still higher one—*the original unity or diversity of all organic forms.*

“ 7. That diversity of cranial types does not necessarily imply diversity of origin. Neither do strong resemblances between such types infallibly indicate a common origin. Such resemblances merely express similarity in position in the human series.”

Dr. Meigs has expressed the opinion, from what skulls he has examined, that the older the races, the more do their characteristics approximate to a common type.

LOUISVILLE UNIVERSITY.—The building in course of erection through the past summer to supply the place of the one burnt down, is, as we are informed, in a state of readiness for a session the ensuing winter.

The Alumni of this institution will feel proud that notwithstanding the late disaster, the Faculty are again fully ready for the duties of the ensuing session.

NEW BOOKS.—We have some new books and Monographs on hand, notices of which are deferred until our next issue.

"ABORTION PILLS"—"FEMALE PILLS."—Many of the secular papers of the day have among their advertisements what is denominated "*The Great English Remedy—Sir James Clarke's Celebrated Female Pills.*" The Pills are not only advertised, but are for sale in this city. Now, what is the design of these Pills? The advertisements say: "To married ladies the medicine is peculiarly suited. It will in a short time bring on the *Monthly Period* with great regularity."

Again: "The pills should not be taken by females who are *Pregnant* during the *first three months*, as they are sure to bring on a *Miscarriage.*" The most stupid female in the land, who meditates wrong conduct, will recognize at once in looking over such statements, that here is a medicine that will produce *abortion*. The author says to her, "don't take them if you have been pregnant three months, because they will be sure to produce *miscarriage.*" This is a plain statement of their properties. The statement also contains the caution, designed evidently to shield the author of the pills and those who sell them, from responsibility. The advertisement is essentially an advertisement of "*Abortion Medicine*;" and none the less improper or immoral because it is *indirect*. Several deaths, it is said, in this city, can be traced to the use of these pills.

DRS. GIBSON AND MUTTER.—These Ex-Professors of Surgery, it appears, from a correspondent of the New York Journal, are at Rome. They design sojourning there the coming winter. It is also stated that Dr. F. W. Sargent, of Philadelphia, had arrived there to reside and practice his profession. Who can but admire the taste that has led these savans to the classic spots of the old world—Rome, the city of a civilization that lasted for twelve hundred years, the city of a people who were at peace profound with all the world for two hundred years, the city of a nation distinguished in all the heroic virtues; and, that even now in her old age, directs and controls the religious polity of some of the first powers in different portions of the earth—who could resist the temptation to dwell for a while within her borders? The men and things that made up her former glory are gone. Her most daring genius has been food for the worms these twenty centuries. Her "*Triumphal Processions*"—where are they? Where is the Scipio that redressed his country's wrongs, and then "*Carried the War into Africa*?" Where is Arch-

agathus, among her first Practitioners of Surgery, who, because he did not cure all his patients, was called the "Executioner," and banished from the capital? Where is Vesalius, who gave birth to the study of Anatomy; and Eustachius, and Fallopius?

Rome was without a Practitioner of Surgery for 600 years after the empire was founded; and to-day she is without a single Medical Journal.

Drs. Mutter and Gibson have taken quarters truly on an appropriate spot of earth's surface for a lesson on the ephemeral and perishable nature of all earthly things. The debris of humanity can be contemplated at no place better than in old Rome. "It rests with death to show the weakness of ambition, and the inanition of pride."

MARSHALL HALL.—We publish in this number of the Journal a short biographical sketch of the late Dr. M. Hall. Everything relative to the deceased will now be consumed with great interest. The public mind is always on tip-toe to get knowledge of all kinds about distinguished personages, and the more especially about those of our own era, who have figured largely in the culture of one of the learned professions. His very manner of existence, habitudes, individuality, looks, sayings, and even his indifferent actions, assume quite a degree of interest.

Dr. Hall exerted the force of his genius on the Nervous System, and crotchety as he found the subject, he labored with no inconsiderable amount of success. We know more of the nervous system because of him.

We shall be pleased to hear that some of his countrymen meditate the getting up of a full biography—a complete account of his life and professional services. Fully he has earned a niche in the temple of fame.

DELINQUENT SUBSCRIBERS.—Those who are *in arrears* for the Journal should recollect that it is upon them that, in justice we ought to depend for meeting the current expenses of publication. A remittance from each one of our delinquent subscribers, while it would not be felt by them, would render the business department of the Journal very comfortable. Shall we not receive our dues?

RECEIPTS.—We had intended to publish *receipts* in this number, but they are unavoidably crowded out. They will appear in the next.

MRS. CUNNINGHAM—DR. UHL.—This case has elicited no small amount of comment from the Medical press of the country. Dr. Uhl has been pretty generally censured for his connection with it. As we understand it, the opportunity occurred to him *only* to make an exposure of Mrs. C.'s pretensions, an exposure that foiled her in her efforts to get in possession of an estate to which she had no right, and that has thrown light upon her true character—an exposure that has also placed the public mind right in regard to her. In doing all this, however, it is said that Dr. Uhl has violated the spirit of Medical Etiquette; has exposed secrets entrusted to him; and in this way has done more harm than good. The truth is, Dr. Uhl simply turned Police Officer to assist in catching a criminal. His conduct is certainly censurable on the score of *taste*.

STARLING MEDICAL COLLEGE.—This Institution commenced its session of 1857-8 on the 15th ult., and the prospect at the present time is that the Class will be larger than for several years. The session will continue until some time in the month of March, making its length about *five* months.

For some time we have advocated the propriety of an increased patronage of *Western Schools*. We have modestly entertained the opinion that a medical education might be obtained, as well in the Mississippi Valley as elsewhere; and we find that this view is gaining a foothold among all those who give the matter consideration. The *Virginia Med. and Surg. Journal*, in a very well written article, thinks the "Old Dominion" is also competent to confer a thorough medical education.

The nonsensical stampede to eastern schools originates in some very sophistical considerations.

By the way, we had prepared a somewhat lengthy notice of this matter, but our printer tells us that room has got scarce.

TRANSACTIONS OF THE OHIO STATE MEDICAL SOCIETY.—We have a notice in course of preparation of this volume, but want of room prevents its appearance in this number. The volume is bound in cloth and contains 226 pages. Our own paper we looked through, and found it defaced with numerous typographical errors. This, we are aware, is to a small extent unavoidable, unless with the most experienced proof-readers.

NEW YORK MEDICAL COLLEGE.

FALL AND WINTER COURSE OF LECTURES.

HORACE GREEN, M. D., L. L. D., Emetrius, Professor of Theory and Practice of Medicine, and Professor of the Respiratory Organs.

E. H. DAVIS, M. D., Professor of Materia Medica and Therapeutics.

B. FORDYCE BARKER, M., D., Professor of Midwifery, and Diseases of Women and Children.

R. OGDEN DOREMUS, M. D., Professor of Chemistry.

J. M. CARNOCHAN, M. D., Professor of Surgery.

EDMUND R. PEASLEE, M. D., Professor of Physiology and Pathology.

HEMRY G. COX, M. D., Professor of Theory and Practice of Medicine, and of Clinical Medicine.

TIMOTHY CHILDS, M. D., Demonstrator of Anatomy.

The Fall Course of Lectures will commence September 15, 1857, and continue until October 30th, when the Winter Course will be resumed. Lectures will be delivered, daily, at the College or Hospital by the following gentlemen :

On Diseases peculiar to Women by Professor BARKER.

On Practical Chemistry by Professor DOREMUS.

On Amputations by Professor CARNOCHAN.

On Diseases of the Skin by Professor COX.

On the Microscope as applied to the Diagnosis of Disease, by Professor CHILDS.

On Auscultation and Percussion by J. HANCOCK DOUGLAS, M. D.

On Practical Obstetrics by CHARLES A. BUDD, M. D.

The Practical Instruction in Toxicological Chemistry will commence three weeks in advance of the Winter Course. Students will have an opportunity of analysing cases from the Coroner. Fee, \$5, to defray the expenses of Laboratory.

Terms. For Summer and Winter Course, inclusive, \$105 ; for Summer Course alone \$25.

If Students attending the Summer Course afterwards decide to attend the Winter Course, the \$25 paid will be placed to their credit in taking out tickets for the Winter Course.

Matriculation Fee, \$5.

Letters may be addressed to any member of the Faculty, or to R. OGDEN DOREMUS, M. D., Dean of the Faculty,

New Medical College,
East 13th, between 3d & 4th Avenues.

THE OHIO
MEDICAL AND SURGICAL JOURNAL.

Vol. 10.

Columbus, January 1, 1858.

No. 3.

PART FIRST.

ART. I.—*Extracts from the Report on Deformities after Fractures, made to the American Medical Association, at its Session at Nashville, 1857.* By FRANK HASTINGS, Hamilton.

RESUME OF ALL THE FRACTURES OF THE SHAFT OF THE FEMUR ; I. E., OF ALL THE FRACTURES WHICH I HAVE RECORDED AS OCCURRING BELOW THE NECK AND THE TROCHANTER MAJOR.

The total number was 83, of which 59 were simple, and 24 complicated, either by having been previously broken at the same point, by comminution, by an external wound communicating with the point of fracture, by a fracture of the opposite thigh, or by other complications, more or less grave. The ages of the patients ranged from 1 year to 55, and averaged 17 years. 76 were males, and 7 females. 31 are recorded as having occurred in the right femur, and 29 in the left. Case 39 died in four weeks, and before union had occurred. In case 72, of simple fracture, union did not occur until the thirteenth week, and in case 75, of comminuted fracture, union was delayed five months ; in all of the other cases bony union occurred within the usual time. The shortest period at which bony union took place was at eleven days, in a child five years old (case 59). In 4 cases, two of which were adults, bony union had occurred at the end of about three weeks ; in nine cases, all of which were under fifteen years of age, bony union had occurred at the end of one month.

In the 15 cases of persons 15 years of age, or under, where the period at which the union seemed to be firm has been noticed, the average was twenty-eight days and a fraction over. In the 9 cases

of persons whose ages exceeded fifteen years, and reached thirty, including case 75, where union was delayed five months, the average period was sixty days and a fraction over: or, if we reject case 75, the average period was fifty days and a fraction over. In the 4 cases whose ages exceeded thirty years, and reached fifty-five, the average period was thirty-five days. (This last estimate, based upon so few cases, and including one case of very extraordinary rapid union, is not supposed to possess any value, yet I have concluded to retain it for the purpose of completing the analysis.)

The average shortening in 56 simple cases, in which the exact result is recorded, rejecting all of those which presented any form of serious complications, is half an inch and $\frac{2^3}{2^2 4}$, or half an inch and a fraction less than one-tenth.

The average shortening in 47 simple cases, in which the exact result is recorded, rejecting not only all of those in which any form of serious complication existed, but also all of those which resulted in no shortening, is three-quarters of an inch and $\frac{1}{47}$.

In 32 simple cases, in which the straight splint, with extension, &c., was used, the average shortening was half an inch and $\frac{1}{33}$, and in the 7 simple fractures, in which the double inclined plane is known to have been used, the average shortening is three-quarters of an inch and $\frac{1}{5}$, or including in the estimate all of the fractures of the femur, both simple and complicated, known to have been treated by the straight splint mainly, the average shortening is half an inch and $\frac{1}{5}$, or a fraction less than three-quarters of an inch; while in all the fractures known to have been treated mainly by the double inclined plane, the average shortening is one inch and a quarter.

With the exception of case 104, in which a shortening of seven inches resulted, in consequence of exfoliation of the bone, the greatest shortening occurred in cases 73 and 99, each of which was shortened three inches. In the first of these cases I only know that "long side splints" were used during the first three months, whether with or without extension, I cannot say. In the second, the double inclined plane, and subsequently plaster of Paris, as a side splint, were employed.

REMARKS.

Whatever may have been the general opinion of experienced surgeons as to the question of shortening in other fractures, very few certainly have ever claimed that in fractures of the femur a

complete restoration of the bone to its original length was generally to be expected. There seems, however, to have existed only certain vague and indefinite notions as to the proportion and amount of this shortening, and which have had for their basis nothing better than a few imperfectly analyzed observations.

Says Scultetus (quoting first from Hippocrates) : " For the bones of the thigh, though you do draw them out by force of extension, cannot be held so by any hands ; but when the first intension slacks, they will run together again ; for here the thick and strong flesh are above binding, and binding cannot keep them down. *Hippocrates de fract.* Which Celsus seems to confirm, *Lib. 8, cap. 10*, where he writes as follows of the cure of legs and thighs : ' For we must not be ignorant that if the thigh be broken, that it will be made shorter, because it never returns to its former state.' And Avicenna, *Lib. 4, Fen. 5*, saith ' that it is a rare thing for the thigh, once broken, to be perfectly cured again.'

" These words admonish us," continues Scultetus, " that we should never promise a perfect cure of the thigh ; but rather, using all diligence, we should foretell that it is doubtful that the patient will be always lame ; but when this shall happen from the nature of the fracture, or which most frequently falls out, from the impatience of the sick person, it may be imputed to our mistake ; and instead of a reward, bring us a disgrace."

Says Chelius : " Fracture of the thigh-bone is always a severe accident, as the broken ends are retained in proper contact with great difficulty. The cure takes place most commonly with deformity and shortening of the limb, especially in oblique fractures, and those which occur in the upper and lower third of the thigh-bone. Compound fractures are so much more difficult to treat."

Maclise, while commenting somewhat indefinitely upon certain plans of treatment, takes occasion to say : " Out of every six fractures of either clavicle or thigh-bone, I believe that as the result of our treatment by the present forms of mechanical contrivances, there would not be found three cases of coaptation of the broken ends of the bone so complete as to do credit to the surgeon."

Says John Bell : " The machine is not yet invented by which a fractured thigh-bone can be perfectly secured." And Benjamin Bell declares that " an effectual method of securing oblique fractures in the bones of the extremities, and especially of the thigh-bone, is perhaps one of the greatest desiderata in modern surgery."

“In all ages,” he adds, “the difficulty of this has been confessedly great; and frequent lameness, produced by shortened limbs arising from this cause, evidently shows that we are still deficient in this branch of practice.”

Colles observes, that “although three or four methods of treatment are practiced, the pieces at the conclusion are often found overlapped.” One reason for which, in his opinion, is a too blind adherence to the principles recommended by Pott.

Velpeau says, that “after fractures of the femur, there is no limping unless the shortening exceeds three-quarters of an inch; and the same is true if the shortening occurs in the tibia. The reason is, that the pelvis inclines toward the shorter limb, and thus compensates for the deficiency in length. In speaking of the various contrivances for dressing the fractured femur, he remarks that most of them fail to obviate the shortening, and produce eschars, ankylosis, or troublesome arrests of the circulation. This is the price that is usually paid for the employment of these complicated machines, and a shortening of a quarter to three-quarters of an inch is not avoided after all. The simplest apparatus that will maintain the adjustment of the fractured femur, so that union may take place with shortening of only half an inch, is the best.”

Nélaton holds the following language :

“A fracture of the body of the femur, with an adult, is always a grave accident, inasmuch as it demands so long a confinement to the bed, and especially on account of the shortening of the limb, which it is almost impossible wholly to prevent: accordingly, Boyer recommends to the surgeon, from the first day, to announce to the parents of the patient the possibility of this accident. With infants, on the contrary, it is almost always easy to avoid the shortening.”

While Malgaigne declares his opinion on this subject thus, at length :

“When we do not succeed in drawing back the displaced fragments, end to end, so that they may oppose themselves to the action of the muscles, it is impossible to preserve to the member its normal length, whatever may be the appareil or method employed. Surgeons are not sufficiently agreed upon that question.

“Hippocrates gives us to understand, that we can always correct the shortening; Celsus, falling into the opposite error, declared, that a broken thigh always remains shorter than the other. At a

period quite recent, Desault pretended to cure all fractures without shortening, and his journal contains several examples. In imitation of Desault, various practitioners have modified, corrected, and improved the apparatus for permanent extension, and they claim to have themselves obtained as complete success. I ought then to declare here, in the most positive manner, that I have never obtained like results, either in the use of my own apparatus, or with that of others, nor indeed where, in pursuance of my invitation, several inventors have applied their apparatus in my wards. I have examined, more than once, persons declared cured without shortening, and yet, upon measurement, the shortening was always manifest. The misfortune of all those who believe that they have obtained those miraculous cures, is that they have not even thought of instituting a comparative measurement of the two limbs; I will say, even more, that they are most generally ignorant of the conditions of a good and faithful measurement. Sometimes, also, they have been deceived in another way; in falling upon fractures which were not displaced, especially with young persons, and they have believed that they have cured with their apparatus a shortening which had never existed. In short, when the fragments are not displaced, or even when they are brought again into a contact maintained by their reciprocal denticulations, it is easy to cure the fracture of the femur without shortening; aside of those two conditions, the thing is simply impossible.

“Several distinguished surgeons of our day have acknowledged this impossibility, and have renounced, in consequence, permanent extension. They allege, moreover, that an overriding of even three centimeters is of little importance, and occasions no limping. I cannot agree with this opinion. I have seen persons walk very well with a shortening of one centimeter; beyond this limit, either they limp, or they have lifted the heel of the shoe, or, in short, the limping is only concealed by a lateral deviation of the spine. We thus are made to comprehend how a fracture with overlapping is always serious, and how cautious we ought to be in our prognosis.”

That the foregoing remarks are intended by the author to be equally applicable to other fractures of the shaft of the femur, than to those of the middle third, is made evident by what he has said before, when speaking of fractures of the upper third.

“The prognosis is sufficiently favorable when the fragments are

denticulated (*engrenées*) ; when they ride, on the contrary, we must look for a shortening as almost inevitable." P. 718.

In our own country several of the most distinguished surgeons have testified to the constant difficulty, if not impossibility, of curing fractures of this bone without a shortening. In a suit instituted against a surgeon of New York city, for alleged malpractice, in the treatment of an oblique, comminuted, and otherwise complicated fracture of the femur near its condyles, "Dr. Mott testified that more or less shortening of the limb is uniformly the result after fractured thigh, even in the most favorable circumstances."

In a very interesting communication made to the author of this report, by Jonathan Knight, of New Haven, late President of this Association, occurs the following passage :

"I have seen but few fractures of the femur in the adult, unless of the most simple kind, in which there was not some remaining deformity ; often slight, so as not to impair the usefulness of the limb, and in others considerable, and apparently unavoidable." Dr. Knight adds, however, "In the greater proportion of the fractures in children, the recovery has been so nearly perfect that no marked deformity or lameness has followed."

Says Dr. Gibson : "Had the surgeon no other difficulties to encounter, than such as present themselves after simple transverse fracture of the shaft of the thigh-bone, he would have little reason to complain of the defectiveness of art, or of the power of nature in promoting a cure. So different, however, from this is the result of an oblique fracture of the body of the bone, or of a transverse fracture of its neck, that it is hardly possible in any case to calculate with certainty upon reünion without more or less shortening and deformity of the limb."

Dr. Detmold, in his remarks made before the New York Academy of Medicine, at its meeting in March, 1855, declared his belief that a shortening of the femur always occurs after fracture, and that "but one inch of shortening in an average of twenty cases is a good result."

Dr. J. Mason Warren, of Boston, writes to me as follows : As you are making observations on fractures, I would state that, after a long and very careful observation, I have never yet seen, either in Boston or elsewhere, an oblique fracture of the thigh, in a patient over seventeen years of age, in which there was not some shorten-

ing. I have had cases shown to me, in which it was averred that the limb was not shortened, but on measuring myself I have found the fact otherwise. In children, I believe that union without shortening may be accomplished."

The following remarks, found in a very valuable paper, communicated by Frederick Lente, House Surgeon to the New York Hospital, to the September No., 1851, of the *New York Journal of Medicine*, are so pertinent, that I shall make no apology for their length.

"In speaking of shortening in fractures of the thigh, I am aware that it is treading on somewhat delicate ground ; for it is quite common for surgeons in private practice, and for surgeons of some eminence, too, and even for surgeons attached to some hospitals to say that, as a general result, they get union of the femur *without any shortening* ; and to accuse those who have taken the trouble to ascertain the amount of shortening in their cases, and who have had the candor to admit it, of carelessness or want of skill.

"From the opportunity I have enjoyed of examining numerous cases of this fracture, and in conversing with surgeons attached to this and other hospitals on the subject, I am prepared to coincide entirely with the opinion of Malgaigne, who says, in his *Traité des Fractures*, so often referred to in this paper, 'The misfortune of those who have thought that they have obtained these perfect cures, is, that they have not even thought of measuring the comparative length of the two limbs ; I say, moreover, that they are often ignorant of the conditions of a good and faithful measurement.'

"There are fractures of the femur, however, as Malaigne admits, which may be cured without shortening, but, in almost all of these, the fragments are so interlocked (*maintenu par leurs denteleures réciproques*) that there was no shortening from the first, which could only have been ascertained by measurement. One means which surgeons have adopted to determine as to the existence or non-existence of shortening, is to observe, when the cure has been fully completed, whether there is a perceptible limp in the gait ; if not, they persuade themselves that there is no shortening. But the fallacy of this test (though sufficient for all practical purposes) is obvious, when it is known that in nine cases out of ten there will be no limp, though the shortening by measurement amounts to one-half or three-quarters of an inch ; and I have seen patients walk some

months after the cure of a fractured thigh, without any perceptible limp, with an inch and even more of shortening, and without the aid of a thick-soled or high-heeled shoe. This I have assured myself of by actual observation and measurement, and so have many of the other surgeons who have been and still are connected with the hospital. We see the same result sometimes after compound fractures of the leg, when a portion of the whole caliber of the bones has been removed.

“ A shortening, however, which will give rise to a perceptible limp in one person, will not be observed to affect the gait of another in any degree. It is probable that the pelvis adapts itself in some degree to the altered length of the limb, when it is considerable. Many surgeons think it only necessary to place the limbs side by side, and thus compare their relative length, to determine whether there be any shortening ; indeed this has been almost the universal practice, and yet this mode is as fallacious as the other, for when the two limbs are apparently most accurately adjusted side by side in a line with the trunk, the shortened limb, from some cause or other, very frequently appears the longer, and the relative length of one may be made to vary at least an inch in appearance by an inappreciable change in its position with respect to the trunk. I am confident that an inch and a quarter of shortening might be, in many cases, overlooked in an examination conducted in this manner, so that no surgeon is prepared to say that his cases have recovered without shortening, until he has carefully measured the two limbs ; and this measurement requires considerable tact and practice. The points we select are the anterior superior spine of the ilium and the inner malleolus, taking care to have the patient properly arranged on a hard mattrass ; when these points are tolerably prominent, as we usually find them, the measurement can be accurately made out ; perhaps the variation of an eighth of an inch might take place. When these points are less prominent, as they are apt to be in fat persons and in females, the probable variations will, perhaps, amount to one-fourth of an inch. We do not trust to one measurement, but to the comparative results of two or three.

“ Having premised these observations, which we have felt compelled to make at some length, in order to clear the surgeons attached to the New York Hospital of any imputation of neglect, or want of skill in treatment of fractures, when we say that our average shortening in fracture of the femur has been three-quarters of

an inch ; and that while we do, now and then, get a cure without shortening, especially in children, the difference in length is sometimes an inch or more, even with the most attentive care."

Dr. Lente believes, however, that with the improved mode of extension, by adhesive plaster, then but recently adopted in the hospital, much better cures will be made ; and indeed, such had already been the experience of the surgeons of that institution, and he is disposed to regard it as one of the most valuable improvements in surgery which have been suggested for many years.

It is not to be denied, however, that a few surgeons in all parts of the world have claimed, and still continue to claim, in their own practice, or from the adoption of their own peculiar plans of treatment, much better success. Indeed, some of them do not hesitate to affirm that, as a general rule, any degree of shortening is quite unnecessary.

Mr. Amesbury declares, that when the fracture is in the "middle or lower third," under a "judiciously managed" application of his own splint, "consolidation of the bone takes place without the occurrence of shortening of the limb, or any other deformity deserving of particular notice."

Mr. South, in a note commenting upon an opposite sentiment expressed by Chelius, and already quoted, remarks : "In simple fractures of the thigh-bone, except with great obliquity, I have rarely found difficulty in retaining broken ends in place, and in effecting the union without deformity, and with very little, and sometimes without any shortening. For the contrary results the medical attendant is mostly to be blamed, as they are usually consequent upon his carelessness or ignorance."

Mr. Hunt, of the Queen's Hospital, at Birmingham, who treats all fractures with the *apparatus immobile* of Suetin, has published the results of his observations ; and of the simple fractures of the femur only one presented, after the cure, any degree of shortening ; and he adds, that all other fractures which he has treated by this method were followed by equally good results." In relation to which statements, Mr. Gamgee exclaims : "This is conservative surgery. What other mode of treatment would have given such results ? And those cases are not exceptional. Mr. Hunt tells us he has selected them from amongst many others equally successful. They accord with the experience recorded in my little treatise on this subject ; and the works of Suetin, Burggræve, Crocq, Velpeau, and

Salvagnoli Marchetti, record numerous cases no less remarkable and demonstratively conclusive."

Desault, also, according to the passage from Malgaigne, which I have already quoted, "pretended to cure all fractures without shortening." I do not find, however, any other authority for this statement, as here made; neither in his *Treatise on Fractures and Luxations*, edited by Bichat, nor elsewhere. Bichat even says positively, that "Desault himself did not always prevent the shortening of the limb." He declares, however, that "Desault has cured, at the Hôtel-Dieu, a vast number of fractures of the os femoris, without the least remaining deformity."

Dr. Dorsey, of Philadelphia, who employed the apparatus of Desault as modified by Physic and Hutchinson, was equally successful.

Dr. Scott, of Montreal, Prof. of Clinical Surgery in the McGill College, and Physician to the Montreal General Hospital, has reported 19 cases of fractures of the long bones, taken promiscuously and without selection, from his hospital service, of which 3 belonged to the clavicle, 7 to the femur, 8 to the tibia and fibula, and 1 to the condyles of the humerus. All of which recovered without any degree of shortening or deformity; except the case of fracture of the condyles of the humerus, which occasioned death.

This is not, however, quite so remarkable as the success which has attended the practice of Dr. Carnochan, of the Emigrants' Hospital, New York, under whose care, during the year ending in September, 1853, every fracture of a long bone, 49 in number, was made to unite without any measure or quality of deformity. Such, at least, is the statement of the four house surgeons. It is true that the statistical enumeration contains no cases of fractures of the femur, yet no one who reads the report could doubt, but that if such cases had occurred, the results would not have been at all different.

It is never a pleasant duty to call in question the accuracy of another's statements as to what he has himself alone seen and experienced. The circumstances which would justify such an expression of scepticism, where the witnesses, as in this case, are presumed to be intelligent and honest men, must be extraordinary. Such, however, I conceive to be the circumstances in this instance. It is certainly very extraordinary that a few gentlemen of acknowledged skill, but whose means and appliances are concealed from no

one, are able to do what nearly the whole world besides, with the same means, acknowledges itself unable to accomplish. Such is the fact nevertheless: and our lack of faith in their testimony is only a necessary result of our experience and of the experience of a vast majority of practical surgeons, as opposed to theirs.

I might properly enough dismiss this subject with no further argument than may be found in the overwhelming testimony of practical surgeons, that broken femurs do, in their experience, rarely unite without more or less shortening; but I cannot avoid calling attention to the evidence of the falsity of the opposite opinion, which is furnished by the testimony of the very persons who themselves claim to have obtained such fortunate results.

It is not, as might have been supposed, one particular form of dressing, which in itself peculiar and more perfect than all others, has furnished these results. On the contrary, the plans of treatment have been constantly unlike, and sometimes quite opposite. Thus: Desault used a straight splint, with extension and counter-extension, and he refused to adopt the flexed position recommended by Pott, because his experience and the experience of other French surgeons, had taught them its inutility. Adopting the straight position, he made perfect limbs; with the flexed position, he found it impossible to do so. Dorsey used the splint of Desault, as modified by Physic and Huchinson.

South, whose success seems to have been equal to that of Desault or Dorsey, adopts also the straight position; but he employs no means for making permanent extension, except what may be accomplished through the medium of four long side splints, applied after "gentle" extension has been made by the assistants.

Mr. Amesbury, on the other hand, made perfect limbs only with his own double inclined plane; and, speaking in general of the various plans hitherto contrived, not excepting that invented by Desault, or the method practiced by South, which had already been recommended by several surgeons, he declares that "they are seldom able to prevent the riding of the bone, and preserve the natural figure of the limb. Indeed, so commonly does retraction of the limb occur under the use of the different contrivances usually employed, that I have heard a celebrated lecturer (now retired) in this town, publicly assert, that he never saw a fractured thigh-bone that had united without riding of the fractured ends!" And, in his "*General Inferences*," he uses the following emphatic

language : "The contrivances which are commonly used in the treatment of these fractures, do not sufficiently resist the operation of the forces above mentioned, but suffer their influence to be exerted upon the bone, in all cases more or less injuriously, and at the same time often assist in *producing* displacement of the fractured ends ; so that deformity, differing in kind and degree in different cases, is almost the constant result of fractures of the femur treated by these means.

While Mr. Gamgee, a writer of much talent and industry, thus broadly contradicts the statements of Desault, South, Dorsey, and Amesbury, and administers a severe rebuke even upon the illustrious Liston. "Pott's plan, the long splint M'Intyre, and their modifications, as a rule, entail sensible deformity, which in many cases is very considerable. It is a significant fact, that, though the example established in University College Hospital, by the late Mr. Liston, of treating fractures of the thigh by the long splint, and of the leg by the modified M'Intyre, which are admitted equal, if not superior, to other splints, was rigidly followed in that institution, the patients admitted with broken thighs or legs were frequently discharged with manifest deformity."

With how much force his own remarks as to the experience of the University College Hospital will apply to the starched bandages used by himself, you, gentlemen, will determine when referred to the opinion of Velpeau, already quoted, who claims no result better than an average shortening of half an inch. It is true, however, that M. Velpeau prefers and advocates the starched bandage, but it is not true that he claims to be able to prevent a shortening of the bone.

"What other modes of treatment would have given such results?" This question, propounded, no doubt honestly, by Mr. Gamgee, has here its fair and satisfactory answer. Almost any of the various modes named ; for if we must receive his testimony, we are equally bound to receive the testimony of Desault, South, Dorsey, Amesbury, Scott and Carnochan. If we give credit to Mr. Gamgee, so far as to doubt the statements of these latter, as to the degree of success claimed by them, by the same rule we must doubt his own statements, also, as to the degree of success claimed by himself. This I say with all sincerity and kindness, fully believing that these gentlemen are mistaken, and not that they intentionally misrepresent the facts.

In conclusion, I wish to say briefly, that in view of all the testimony which is now before me, I am convinced—

First. That in the case of an oblique fracture of the shaft of the femur occurring in an adult, whose muscles are not paralyzed, but offer the ordinary resistance to extension and counter-extension, and where the ends of the broken bone have once been completely displaced, no means have yet been devised by which an overlapping and consequent shortening of the bone can be prevented.

Second. That in a similar fracture occurring in children, or in persons under fifteen years of age, the bone may sometimes be made to unite with so little shortening that it cannot be detected by measurement; but whether in such cases there is in fact no shortening, since with children especially it is exceedingly difficult to measure very accurately, I cannot say.

Third. That in tranverse fractures, or oblique and denticulated, occurring in adults, and in which the broken fragments have become completely displaced, it will generally be found equally impossible to prevent shortening; because it will be found to be generally impossible to bring the broken ends again in such apposition as that they will rest upon and support each other.

Fourth. That in all fractures, whether occurring in adults or in children, where the fragments have never been completely or at all displaced, constituting only a very small proportion of the whole number of these fractures, a union without shortening may always be expected.

Fifth. That when, in consequence of displacement, an overlapping occurs, the average shortening in simple fractures, where the best appliances and the utmost skill have been employed, is between one-half and three-quarters of an inch.

Regarding the middle of the shaft of the femur as the type of all of the fractures of the femur, in respect of prognosis, and measurably in respect of treatment, and understanding the remarks which have already been made as especially applicable to lesions at or near this point, it will be easy to make a proper application of these conclusions to other fractures occurring through the different portions of this bone.

If we consider the muscles alone as the cause of the displacement in the direction of the long axis of the shaft, the shortening of the limb, other things being equal, must be proportioned to the number and power of the muscles which draw upward the lower fragment.

This will vary in different portions of the limb, but no where will this cause cease to operate, nor will its variations essentially change the prognosis.

I have not intended to say that other causes do not operate occasionally in the production of shortening, but only that muscular contraction is the cause by which this result is chiefly determined, and that its power will be ordinarily the measure of the shortening.

The following propositions relative to fractures of the neck of the femur, I believe to be substantially correct; and I shall take the liberty of stating them dogmatically, waiving, for the present, the evidences upon which they seem to me to rest.

First. Fracture of the cervix femoris within the capsule, when incomplete, or when the fibrous and synovial capsules are not torn—in short, whenever from any cause the fragments do not separate—may unite either through the medium of fibrous structure, or of bone.

Second. When, however, the fragments have been once completely, or in any considerable degree separated, it is probable that union always occurs through the medium of fibrous structure alone, or that no union takes place.

Third. When the fracture is extra-capsular, impaction of the fragments is the rule, and not, as in intra-capsular fractures, the exception.

Fourth. In extra-capsular fractures the impaction, when it occurs, is more complete than in the case of intra-capsular fractures.

Fifth. When shortening follows as a consequence of displacement, in the case of intra-capsular fractures, it is not always immediate, but may be delayed several days, and then take place either suddenly or gradually.

Sixth. On the contrary, in extra-capsular fractures a manifest shortening almost always takes place immediately, and seldom does the limb shorten subsequently.

Seventh. Examined on the first day after the occurrence of the fracture, intra-capsular fractures, as compared with extra-capsular, will probably show the smallest average of shortening.

Eighth. Examined after the complete recovery, or after the lapse of several years, the reverse of the seventh proposition will be found true,

It is not my intention to speak with more particularity than I have already done, of the form and directions of the deviations which

occur with some regularity at the different points of fracture. I will only say that there is much reason to believe that the efficiency of the muscles inserted into the trochanter minor, in producing a forward displacement of the upper fragment, when the fracture is just below this point, has been by some surgeons greatly over-estimated : and a similar remark will apply, only perhaps with less force, to a fracture just above the condyles, where the direction of the fracture is obliquely downward and forward.

I may very properly, however, call attention in this place to the unusual direction of the fracture, and character of the displacement, in case 105, p. 286—the direction of the fracture being from above downward, and from before backward, a circumstance which, as occurring at this point, just above the condyles, is probably very rare. The pressure of the lower end of the upper fragment upon the popliteal artery so far arrested the circulation in the lower portion of the limb as eventually to produce a sloughing of a considerable portion of the foot: the death of the foot being preceded by extreme pallor, shrinking, and coldness of the toes.

Sir Astley Cooper does not seem to have recognized this form of fracture and displacement. Amesbury has, however, recorded one case, which came under his own observation, where although the bloodvessels and nerves escaped, the bone projected through the skin in the ham, and finally exfoliated. And he thinks the point of bone may sometimes so penetrate the artery, and injure the nerves as to render amputation necessary, in order to save the life of the patient.

M. Coural also has related a case in which an epiphysary disjunction, occurring in a child twelve years old, was attended with a displacement of the upper fragment backward, and amputation became necessary.

I know of no other cases of this rare accident which have been reported. Lonsdale refers to it as “the rarest direction for a fracture to take ;” and thinks that in case of its occurrence, the vessels in the popliteal space will stand a chance of being wounded ; but he mentions no example. I have seen, however, in the valuable collection of bones belonging to Dr. March, of Albany, an oblique fracture of the femur just above the condyles, in which the upper fragment is behind the lower. It is united by bone, and with a shortening of two and a half or three inches.

The popliteal artery hugs the bone so closely at this point, that a

displacement of the upper fragment in a direction downward, and backward, must always greatly endanger its integrity. Indeed, it is here that the artery and vein are in the closest contact with each other, and with the bone : an anatomical fact, which has been used by Richerand and others to explain the greater frequency of aneurisms in the ham.

Especial notice ought also to be taken of the unusual case reported by Dr. Alph B. Crosby, of Hanover, N. H., of a fracture of the external condyle of the femur, the small fragment having been successfully removed by Dr. Crosby, after the lapse of six months. The case is reported at length in the *New Hampshire Med. Journal*, for 1857. I have at this moment the specimen in my possession, it having been sent to me by Dr. Crosby, for examination, and there can be no doubt that the opinion of this distinguished surgeon, as to the character of the fracture, is correct.

The reported cases of fracture of one of the condyles of the femur are not numerous. Sir Astley Cooper and Bransby Cooper have each mentioned one case ; Boyer has reported one case ; Malgaigne has seen three, and there are three specimens in the Dupuytren museum. One case also is reported in the 15th vol. of *Braithwaite's Retrospect*, p. 149.

Dr. Wells, of South Carolina, has reported a case of dislocation of the knee, accompanied with a fracture of the inner condyle. The patient died on the second day. An examination after death showed "that a thick scale of bone was fractured from the inner part of the inner condyle, and remained attached to the ligament." And Dr. Kirkbride has reported a case of fracture of the external condyle, which was presented at the Pennsylvania Hospital, and which resulted in a very perfect cure.

Note.—I have seen no case of a fracture through, or between the two condyles, extending into the joint, except a single specimen contained in the museum of the University of Pennsylvania.

Nor has it ever occurred to me to meet with an epiphyseal disjunction, occurring as the direct result of violence, either at the upper or lower end of the femur. South had a case of this kind, where the separation occurred through the neck, in a boy ten years old. Dr. Post, of New York, related to the members of the Kappa Lambda Society, in March, 1840, a similar case which had recently come under his observation, in a girl sixteen years old. The limb remained permanently shortened. At a meeting of the New York

Pathological Society, held in October, 1855, Dr. Markoe presented a specimen, taken from a girl nine years of age, in which the neck was broken, or separated just external to the capsule, and exactly in the line of the epiphyseal junction. The trochanter was also fissured, showing that the lesion had partaken a little of the character of an impacted fracture; and Dr. Parker called attention, in his clinic at the College of Physicians and Surgeons, to what he believed to have been a similar accident in a girl eighteen years old. It had resulted in suppuration, and permanent shortening of the limb.

TREATMENT.

In pursuance of the plan which has been hitherto observed, in the several sections of my report, I shall devote a few pages to the consideration of the *treatment* of fractures of the femur.

We have no space for a full discussion of the various plans which have been devised and practiced by skillful surgeons for the treatment of these fractures. Nor, indeed, is there room for their mere enumeration: and I shall content myself with only a brief consideration of the question of *posture*, as that alone upon which surgeons have at any time greatly differed, and in relation to which, debate is not yet altogether at an end.

All of the early surgeons, so far as we know, adopted the straight position in the treatment of fractures of this bone: either with simple lateral splints, or with long splints, with or without extension, or with only rollers and compresses, or with extension alone.

Such were the unanimous opinions and practice of surgeons, until about the middle of the last century; at which time Percival Pott wrote his remarkable treatise on fractures, distinguished alike for the originality and boldness of its sentiments, and which was destined soon to revolutionize the old notions, as to the treatment of fractures, and to establish in their stead, at least for a time, what has been called not inappropriately, the "physiological doctrine." The peculiarity of which doctrine consisted in its assumption, that the resistance of those muscles which tend to produce shortening can generally be sufficiently overcome by posture, without the aid of extension, and that for this purpose, for example, in the case of a broken femur, it was only necessary to flex the leg upon the thigh, and the thigh upon the body; laying the limb afterward quietly on its outside upon the bed.

Very few surgeons, even of his own day, ever gave in their full adhesion to the exclusive physiological system as taught and practiced by Pott himself, but multitudes, especially among the English, adopted in general his views; only choosing to place the patients upon their backs rather than upon their sides, and laying the limbs flexed over a double inclined plane. To the support of this system of Pott's, thus modified, Sir Astley Cooper, C. Bell, John Bell, Earle, White, Sharp, and Amesbury, lent the influence of their great names, and its triumph, so far as the judgment of the British surgeons was concerned, soon became complete.

In France, and upon the Continent generally, the reception of this system, was more slow and reluctant; but Dupuytren, now for once, taking ground with his great rival, Sir Astley, adopted almost without qualification, these novel views. The decision of Dupuytren determined the opinions of a large portion of the continental surgeons, and had it not been for the early and decisive opposition of Desault and Boyer, the great surgeon of St. Bartholomew might have continued for a long time to have enjoyed a triumph upon the Continent, perhaps throughout the world, equal to what had already been decreed to him in Great Britain.

On this side of the Atlantic, the practice of Pott, at least in so far as it applied to the treatment of fractures of the thigh, never gained a distinguished advocate; and but few ever adopted the practice, as modified by White, Amesbury, Bell, A. Cooper, &c.

But whatever may have been the early success of these doctrines, either here or elsewhere, it is certain that a strong reaction has taken place, and that gradually, in all parts of the world, the opinions of practical surgeons have been settling back into their old channel. It would be difficult to find to-day, in France, a dozen distinguished surgeons who adopt the flexed position in the treatment of fractures of the femur. And in England, the reaction is, if possible, even more complete.

In my tour of 1844, during which I visited very many of the hospitals of Great Britain, and upon the continent of Europe, I do not remember to have seen the flexed position once employed in the treatment of a broken thigh; and I shall presently show that the straight position is at the present moment very generally adopted by the best American surgeons.

There have been, then, three grand epochs in the history of the treatment of fractures of the thigh.

First. That in which the straight position was universally adopted ; and which reaches from the earliest periods to the period of the writings of Pott, or to about the middle of the last century.

Second. The epoch of the flexed position ; which, inaugurated by Pott, had already begun to decline at the beginning of the present century, and which may be said to have been completed within less than one hundred years from the date of its first announcement.

Third. The epoch of the restoration, or that in which surgeons, by the vote of an overwhelming majority, have declared again in favor of the straight position. This is the epoch of our own day.

The opinions of most of the distinguished foreign surgeons upon this question, as upon nearly all other questions relating to our science, thanks to the abundance of our foreign medical literature, are sufficiently well known ; while the opinions of my own countrymen, which are often, it will not be denied, entitled to as much respect as those of our trans-atlantic neighbors, but the medical literature of whose country occupies an humbler rank in the estimation of the world, are but little known even to ourselves. I deem it my duty, therefore, as far as I am able, to mention especially the views and practice of American surgeons.

“Many years since, I introduced into the New York Hospital Boyer’s long splint, and continued to use it there, and in private practice, for a long time. I found, however, in many cases, that I had more or less trouble at the foot and groin from the points of extension and counter-extension. I then gradually laid it aside, and for some years have again taken up the double inclined plane.

“From the abundance which I have seen, I am free to say that if I had my own femur broken, I would be treated upon the double inclined plane.

“The Drs. Burges, Brothers, Court St., Brooklyn, Long Island, have made an improvement upon the extended principle. Their apparatus is now complete, and is in use at the Bellevue Hospital, where I advised, some time since, that it should be tried. It has succeeded admirably in two cases.”—VALENTINE MOTT. *Private Correspondence.*

“For the treatment of fractures of the thigh-bone below the neck, I have always used the double inclined plane, as advised by Sir Charles Bell. Fractures of the leg I have treated in both modes, and with about equal success as to the ultimate result. But in

these, also, as a general rule, I use the double inclined plane on the plan of Amesbury."—JAMES McNAUGHTON, *Albany. Private Correspondence.*

"I treat all thighs, fractured in their middle part, by the long splint, and in the straight position. In fractures occurring at either end of the bone, I resort at first to the angular splint and the flexed position, and thus place the muscles more at rest; in which position, also, there is less tendency to angular displacement and shortening. After the lapse of a few days, when the disturbed muscles have lost their tendency to spasm, and the hardened cellular tissue about the fracture has formed a sort of bond between the ends of the broken bone, I gently bring the limb down to the straight position, and apply the long splint."—JOSEPH PANCOAST. *Private Correspondence.*

"I am in the habit of treating fractures of the thigh-bone, except in the vicinity of the articulations, in the extended position. I make counter-extension by means of a perineal band attached to the upper extremity of a long splint, extending nearly to the axilla; and extension by means of lateral strips of adhesive plaster secured to the lower end of the long splint. I treat fractures of the os femoris in the neighborhood of the hip and knee-joints in a semi-flexed position, in order to diminish the displacement resulting from muscular contraction.

"In the treatment of fractures in general, I have long since abandoned the method which I had been taught to regard as the correct one, viz., to defer the accurate adjustment of the fracture, and the application of splints and bandages, until after the subsidence of the inflammation following the injury. I am now in the habit of replacing the fragments as accurately as possible when I am first called to the patient, and of applying a suitable apparatus to maintain apposition; and every year's experience convinces me more fully, that this course not only secures a more favorable result, but adds greatly to the comfort of the patient. I need not say that in applying bandages to a recently fractured limb, caution is required not to strangulate the circulation.

"In one respect, my practice in the treatment of fractures deviates from that which is pursued by the majority of practitioners. I am in the habit of removing the dressing every day or two, and applying passive motion to the joints in the vicinity, to guard against the rigidity which otherwise becomes so troublesome a symptom. I

do not, however, pursue this course in the treatment of fractures of the thigh, on account of the liability to displacement of the fragments."—ALFRED C. POST, of *New York*. *Private Correspondence*.

"In fractures of the shaft of the femur, immediately below the trochanter minor, I have always dressed the limb with the double inclined plane; elevating the knee decidedly, and padding beneath the ham, if necessary, in a manner to effect moderate extension by the weight of the trunk. In a *transverse* fracture, also, of the middle of the shaft, with a good deal of pains-taking, I succeeded satisfactorily with an Amesbury's splint.

"In all other fractures of the shaft, constituting, at least, nine-tenths of the whole, I regard the straight position of the member as indispensable to success."—JOHN DE LAMATER, *Cleveland, Ohio*. *Private Correspondence*.

"My usual, but not exclusive method of treating fractures of the os femoris, is by some mode of extension in the straight position. My preceptor, Warren, secundus, rarely employed any other method, and my impressions—too indefinite and inexact for your present purpose—are that he brought most of his cures out with but little deformity or shortening. As to the results of my own practice in this particular instance, as well as in the whole section of surgery to which it belongs, although my patients have generally recovered with useful limbs, yet such a retrospect as I am able to make, favors the same conclusions as those to which your record of a very large and diversified experience is calculated to bring us, respecting the imperfect state of this department of our art.

"Of late years, I have generally employed Liston's single long splint; having it thickly padded, and then applying a roller from the foot to the hip, in such a manner as to secure the limb firmly to the splint. This is about the only case in which I now wrap a fractured limb with a roller." * * * * *

"I have repeatedly used, and with much satisfaction, in the fractures to which you refer, extension by means of the pulley, having the coöperation only of short lateral splints at the place of the fracture. With a mattress slightly inclined toward the head, and moderate, but persistent traction made on the injured limb by a weight made fast to the foot by means of a cord passing over a pulley—the pulley being secured to the foot-board. I have conducted some tolerably oblique fractures to a satisfactory termination, and with much more comfort to the patients than attends any other

equally effectual method of extension.”—JOSHUA B. FLINT, *Louisville, Ky. Private Correspondence.*

“In the treatment of fractures of the femur, I employ neither the straight nor the flexed position exclusively, but the one or the other, according to the site of fracture. If the fracture involves either the upper (below the trochanter minor), or the lower third (above the condyles) of the femur, I make use of the double inclined plane of Sir Charles Bell. If, on the other hand, the seat of fracture be in the middle third of the thigh, I greatly prefer the straight, long splint of Mr. Liston.

“My reasons are briefly the following: In fractures below the trochanter minor, the upper fragment is tilted forward and upward, by the unrestrained action of the psoas muscle, so that no extension in the straight direction will avail to draw down the upper in a line with the lower portion of the lever.

“The same thing results in fractures of the lower third, but in opposite directions. Here the heel becomes the fixed point, and gastrocnemii draw the lower fragment backward and downward, whilst the upper fragment projects in front. Rectilinear extension can no more correct the malposition of the lower fragment in this case, than it can in the former that of the upper. But in both (upper and lower third fractures), by placing the limb over a double inclined plane, these otherwise insuperable deviations of the fragments are prevented, and the whole bone is brought into proper line.

“When, on the contrary, the fracture implicates the middle third or even the middle half of the femur, I invariably employ the straight splint, which I regard as by far the simplest, most effectual, and best means of treatment: and, indeed, but for the reasons assigned, I should only be too glad to use it exclusively in the management of all fractures of the thigh.

“My cabinet presents several specimens of broken femurs, which illustrate the soundness of these views: in which the abnormal direction of the fragments alluded to as occurring in fractures of the upper and lower thirds, is very marked; the deformities having resulted from treatment in the straight position. So far as function and symmetry are concerned, the lower deformity is altogether the most serious. The unseemly projection above the knee, the unnatural exposure in front of the articular surfaces of the condyles,

which are not set bluffly on those of the tibia, together with the altered site of the patella, and the diminished power of the quadriceps muscle, both weaken and deform the joint.

“With regard to the management of fractures below the trochanter minor, or at other points of the femur, by means of the double inclined plane, I am well aware of the difficulty of properly confining the pelvis, but this objection I am far from considering as insuperable. So, too, the outward tendency of the upper fragment, caused by the gluteus, may be humored by carrying the limb off at an oblique angle to the axis of the body.

“It is, perhaps, needless to add, that in fractures of the condyles, of the inter-trochanteric portion, as well as of the neck of the femur (when osseous union is attempted), whether within or without the capsule, I likewise give preference to the straight position.

“I will here also incidentally state that I have found much satisfaction in the treatment of fractures of the leg (tibia and fibula), by the long splint in unruly patients, and those suffering the complication of delirium tremens. The apparatus is applied as in fractures of the thigh, more attention of course being paid to the adjustment of the leg.”—CHARLES A. POPE, *St. Louis, Mo. Private Correspondence.*

“In the early part of my practice, following the advice of Dr. Physick, I treated all cases of fracture of the thigh with the long straight splint of Desault; afterward, adopting the practice of Dr. Nathan Smith, I treated many cases by placing them in the flexed position, upon some form of the double inclined plane.

“For many years past, I have selected one or the other of these methods, according to the age of the patient, and the form and position of the fracture.

“In the fractures of the thigh in children, which are commonly near the middle of the bone, and less oblique than in the adult, and in whom the muscles are less active in shortening the limb, I have usually preferred the flexed position, depending very much upon frequent examination and readjustment of the parts, as well as the dressings, when necessary, for preserving the bones in their place. In fractures of the neck of the bone, or through the trochanters, I have used exclusively the long splint, as no other method can be relied upon for preserving the length of the limb.

“Oblique fractures near the middle of the bone, in the adult,

have been usually treated in the same way. The practical difficulty in the use of the long splint is the pain and subsequent inflammation produced upon the parts to which extension and counter-extension are applied. Of late, much of this has been avoided by making extension with adhesive straps, as recommended by Dr. Josiah Crosby, of New Hampshire.

“ In fractures of the upper part of the shaft of the bone, the lower end of the upper fragment is so much tilted forward by the flexor muscles of the thigh, that it is difficult, perhaps impossible, with the limb in the straight position, to bring or retain the two portions of the bone in a line with each other. For this reason, I treat fractures of this kind in the flexed position.

“ So, also, in fractures of the lower end of the bone just above the trochanter, I prefer the flexed position. These fractures, so far as I have observed them, have usually been oblique from before, upward and backward, with the lower fragment rolled forward by the gastrocnemii muscles. The displacement is readily remedied in the flexed position, and as the fractured surfaces are large, there is little tendency to shortening of the limb. The cases of this kind which I have seen, have recovered quite as perfectly as any other fractures of the thigh.

“ In fractures of the neck of the bone, either partially or entirely, within the capsular ligament, so common in persons advanced in life, I have rarely employed any firm dressings with the view of preserving the length of the limb. The prospect of any resulting benefit from their use is so slight, while they are so annoying, and not unfrequently so injurious to the health of persons at an advanced age, that I have not thought it best to employ them. I have seen no distinct case of this kind, in which any other than ligamentous union has taken place.

“ In one of this kind, many years ago, a very fair one, the patient being a spare and healthy man, about sixty-five years old, I tormented him for about six weeks with the long straight splint, preserving the limb of about its full length for this time, so that on placing him upon his feet, the heel of that side came fairly to the floor; as soon as he began to bear weight upon it, it commenced to shorten by the yielding of the ligament, until it was more than an inch shorter than the other, and in about the usual state as those in which the most simple treatment is employed.

"I have seen several cases of interlocking fracture, as I supposed them to be, in which the symptoms of fracture have been so obscure as to lead to a doubt of its existence.

"These have rarely recovered perfectly, there being usually some eversion of the limb, with some restraint of the motion of the joint.

"A case of this kind, which was accidentally rendered a perfectly plain one, may perhaps interest you sufficiently to warrant a statement of it. A lady, about sixty years old, while getting out of a carriage, caught her foot in the stirrup and fell to the ground, striking on the trochanter. An intelligent physician, who saw her at once, did not detect a fracture. She was able to ride home, a distance of about thirty miles, in a carriage, with little inconvenience.

"Upon examining her, I found her suffering little pain when at rest, except such as is common after a bruise. There was no deformity of the limb of any kind; I could give all the motions to the limb, to a moderate extent, while if larger motions were attempted, a good deal of pain and resistance of the muscles was produced. This pain upon motion, together with the inability, when lying upon the back, to raise the limb from the bed were the only symptoms of fracture. She continued in this way for three or four days, suffering very little, and able with very little assistance to move herself from the bed to a chair, and sit comfortably for several hours in the day. While sitting in this way, she attempted to raise herself erect, with her hands upon the arms of the chair. When this was partly accomplished, the arm of the chair next to the injured limb broke, and she struck forcibly, for she was a heavy woman, upon the trochanter. This was followed by severe pain, by eversion, and shortening of the limb, and by all the symptoms of fracture of the neck of the bone. After a long confinement, she had the imperfect recovery which is common in such cases. I had no doubt that the fracture was produced by the first fall, and the displacement by the second."—JONATHAN KNIGHT, *New Haven. Private Correspondence.*

"I have used the long outside splint in fractures of the thigh for many years, and prefer it to any other. I use as little bandage as possible, leaving the limb free from unnecessary pressure. In some instances, when the patient has been careful and intelligent, I have relied on extension made permanently at the head and foot of the

bed, leaving of all splints after the first few days.”—J. H. ARMSBY, *Albany. Private Correspondence.*

“Dr. Flagg, to whom you addressed a note through Dr. Morland, in regard to the fracture apparatus in use at our hospital” (Massachusetts General Hospital, situated at Boston), “is long since dead. Dr. Morland has requested me to supply you with drawings, and descriptions of it. The apparatus was introduced into the hospital by my father, and has been somewhat modified from time to time. It is, I think, the best apparatus employed anywhere, and I have examined particularly the construction of these instruments, both in this country and in other parts of the world. I inclose a description and drawings, made by Dr. L. M. Sargent, artist to the hospital.” * * * * “This apparatus I use for all fractures of the thigh, and have at present seven patients with it applied. We use it for fractures of the neck of the femur, as well as for fractures of the shaft.”—J. MASON WARREN, *Boston. Private Correspondence.*

“For all fractures of the thigh-bone, I employ the extended position of the limb. There are but few cases in which extending force is not necessary to prevent the degree of deformity or shortening which would occur without it. Of thirty specimens of fracture of the shaft, in my collection, only two are transverse. In fractures of the neck, especially with old subjects, I sometimes avoid the application of any kind of apparatus for permanent extension; but in all cases, whether of the neck or shaft, where such extension is attempted, I have found the straight position of the limb to be the most reliable.”—REUBEN D. MUSSEY, *Cincinnati. Private Correspondence.*

“If I should be asked under what circumstances I would use the double inclined plane in case of fracture of the femur, I would unhesitatingly answer, never! I have long since abjured the double inclined plane in every form of fracture of this bone, finding the straight splint fully adequate to all purposes for which any apparatus of this kind is required. In support of this statement, I could furnish a great number of cases showing that the locality of the fracture, the importance of which is so much dwelt upon in the books, constituted, in no case, a valid objection to its use.” G. KIMBALL, *Lowell, Mass. Private Correspondence.*

“In reply to your question, ‘What position do you adopt in the treatment of fracture of the thigh-bone?’ I answer, emphatically, the straight. Many years ago, before I had much experience in

this class of injuries, I occasionally employed the flexed position, but I soon found that it was objectionable, on account of the great difficulty in maintaining so accurate apposition of the ends of the fragments. Of late years, I have confined myself entirely to the use of the straight position, and I have never had any cause to regret it. In the adult, I sometimes employ the apparatus of Desault, as modified by Physick, but much more frequently one of my own construction, somewhat upon the principle of that of Dr. Neill described in the *Philadelphia Medical Examiner* for 1855. I have used it for nearly twenty years, and it has generally answered the purpose most admirably in my hands. It consists simply of a box for the thigh and leg, with a foot-piece, and two crutches, one for the axilla and the other for the perineum, to make the requisite extension and counter-extension. With such an apparatus, an oblique fracture of the thigh can be treated with great comfort to the patient, and with the assurance of a good limb. In children, I have effected some excellent cures simply by means of a sole-leather trough, well padded and provided with a foot-piece.

“The great objection to the flexed position is the difficulty of keeping the ends of the broken bones in apposition: the upper one having a constant tendency to pass away from the inferior. Other objections might be urged against the flexed position, but this is quite sufficient to induce me to reject it.”—S. D. GROSS, *Philadelphia. Private Correspondence.*

An interesting letter from Dr. Paul F. Eve, of Nashville, Tenn., I regret to say, has been mislaid. He prefers the straight splint in all fractures of the thigh, except when the fractures occur near the upper or lower end of the bone.

“In regard to fractures of the thigh and leg, I can only say that I prefer the straight position for the treatment of both, and in nearly all cases I employ it. I have no doubt, however, that as good cures can be made with the flexed position, though I think it requires more care and attention in the treatment to do so, besides being less comfortable to the patient, and more difficult to measure accurately the limb.”—GEO. W. NORRIS, *Philadelphia. Private Correspondence.*

The following additional remarks, continued in Dr. Norris's letter, although not entirely apposite, are too valuable to be withheld: “Permit me to suggest to you to say something in your forthcoming work on the early inspection, and the frequency of dressing, in fractures—points which seem to me to be not sufficiently attended

to by our writers and teachers, and to be greatly needed. How common is it to see fractures done up and not examined for several days, and then, if the injury has been oblique, to find when opened that it is accompanied with displacement? In those about the wrist, as well as in the leg and thigh, I am sure I have often seen mischief arise from want of early dressing. Students and practitioners who do not see much surgery, are apt to imagine that examination of the fracture and replacement of the apparatus are necessarily accompanied with pain and disturbance of the injured bone, and hence avoid it. Neither of these, however, are necessary accompaniments of the examination and re-dressing of a fracture if there be no displacement, and should there be, an opportunity is thus afforded for remedying it before it is too late.

“Another defect in the treatment of fractures about the joints, which I should like to see noticed by you, is the necessity of frequent dressing in the latter stages of the cure, and the giving of careful passive motion to joints that are confined by the apparatus. In fractures near the hand, for example, particularly in the laboring classes, such motion during the cure, to the wrist and finger-joints, is all-important; as, unless practiced, these cases are constantly followed by false anchyloses which require a long time to overcome, and which, in some degree, at least, might be avoided by following a different course. A mention of these things in your book, though, in the eyes of those who are daily called on to treat such accidents, very ordinary matters, would, I think, be calculated to direct attention to them, and do much good in our country.

“From all that I have seen of the treatment of fractures, I am a warm advocate for frequent dressings, wherever the fractures may have occurred—in the early stages, to prevent displacements, excoriations, &c., and in the latter stages, in order to give passive motion to the neighboring joints, which I know can be done without injury to the fracture. Of late years, I have been in the habit of dwelling upon these little matters as of importance, at our hospital. At the same time, you must understand me as being a staunch advocate for a state of perfect rest, as, in my opinion, the only proper one for broken bones.” See, also, remarks by Norris on bad effects of early application of tight bandages, *American Jour. of Med. Sciences*, vol. xxii., p. 292.

In addition to these opinions of well known and distinguished American surgeons, which I have been permitted to declare, I will

remind you also of the practice of those whose opinions, having already found a record, demand only from me a suitable reference.

The following surgeons recommend the straight position :

Physick, Dorsey, Gibson, Horner, J. Hartshorne, H. H. Smith, Neill, Bache, Daniell, R. Coates, Howe, Flagg, Dugas, and Caldwell ; while the following gentlemen have given a preference to the flexed position ; Nathan Smith, of New Haven ; Nathan R. Smith, of Baltimore ; and Nott, of Mobile.

With one or two exceptions, it is probable that the straight position is adopted in the treatment of broken femurs in every large hospital in this country. Such I believe to be the practice in the Massachusetts General Hospital, of Boston ; in the hospital under the care of Dr. Kimball, at Lowell, Mass. ; in the New York City Hospital, and at Bellevue ; in the Pennsylvania Hospital, of Philadelphia, and at Blockley. All of the surgeons attached to the Buffalo Hospital of the Sisters of Charity, including the marine wards—viz., Drs. Winne, Smith, Boardman, Samo, Wilcox, with myself—adopt the straight position, with but occasional exceptions.

The practice of treating fractures of the thigh, as well as all other fractures of the long bones, with the roller alone, and without either lateral splints or extending apparatus, first suggested by Radley, has found in this country but one distinguished advocate, Dr. Dudley, of Lexington, Ky.

The general plan of treatment preferred by the writer has already been stated, and it only remains to allude briefly to certain points which do not seem to have received sufficient notice from systematic writers, or which may for other reasons possess a peculiar interest.

Without limiting ourselves to the consideration of any one of the special forms of apparatus, we may say that the following ought to be regarded as essential elements in the construction of the long straight splint : Length sufficient to extend at least several inches above the *alæ* of the pelvis, and the same distance below the foot ; such thickness as that it shall be firm and unyielding ; width sufficient to make it serve as one of the lateral splints, since over all the properly called lateral splints it possesses this advantage, that it can never become displaced downward or upward ; its width ought seldom to be less than three and a half inches, nor should its width diminish as it descends toward the foot, as in consequence of this construction, the roller, which is intended to secure the limb to the splint, has a constant tendency to slide in the same direction.

A foot-piece, or transverse block, to which the foot may be attached, for the purpose of making extension as nearly as possible in the axis of the limb. If this foot-piece is moveable, it will serve only the single purpose above-mentioned, and no rule need govern its width. But in this case there must be another block attached to the bottom of the long splint, at right angles with the shaft, and of the same width as the splint; the object of which will be to support and steady the side splint, and to prevent its rolling inward or outward. Where this is neglected, frequent disturbance of the broken fragments, and a deformity from inclination of the foot outward or inward, are apt to ensue. If the foot-piece is not moveable, then it may be of the same width as the side splint, and serve both to steady the side splint and as a means of extension. Its length ought not be such as to interfere with a long inner splint, in case its use should be deemed advisable.

With two fenestra placed at the upper part of the splint, for the reception of the counter-extending band, the long outside splint is now complete.

These are, so to speak, its simple elements, and compose the splint in its rudest form, without which no splint can be perfect, yet upon which many real improvements may be based. Thus it must be regarded as an improvement to have the splint so constructed as that it may be readily lengthened or made shorter, to accommodate itself to the size of the patient; or that the foot-piece should be furnished with a screw, for the purpose of making the extension more uniformly; or that the same mode of operating should apply also to the counter-extension.

The adhesive plaster bands are beyond all comparison the best means of making a permanent extension which are at present known to surgeons. Hitherto, one of the most serious difficulties in the way of extension, and the objection which has been most effectively urged against its adoption, has been the excoriations, ulcerations, and even sloughing, which so often occurred from the use of the various extending bands about the ankle. This, together with the injuries occasionally inflicted by the perineal band, has been regarded by other surgeons than Dr. Mott, whose opinions we have already quoted, as a sufficient reason for preferring the flexed position. But no one who has employed the adhesive plaster extending bands will doubt that, so far as injuries to the foot and ankle are concerned, this objection is now entirely disposed of. It is adopted in many,

perhaps most, of the American hospitals, and in no case where it has been employed have I known the slightest excoriations to have been produced. I regard this simple invention, therefore, as one of the most important improvements in the treatment of fractures of the thigh, and it is not surprising that several claimants have appeared for the original suggestion. By Mr. Brinton it has been claimed for Dr. Ellerslie Wallace, of Philadelphia; and by Dr. Sargent for Dr. Gross, of the same city; while by American surgeons generally the invention has been conceded to Dr. Josiah Crosby, of New Hampshire, to whom certainly is due the credit of having brought it into notice, if not, indeed, of the first suggestion.

The mode of using adhesive plaster for extension is briefly as follows :

A single band, long enough to extend from a point just below the knee, to twelve or sixteen inches beyond the foot, and about three inches wide, is to be applied along each side of the leg. Instead of one band on each side, two may be employed; which shall traverse each other somewhat obliquely, so that one band shall fall a little in front of the malleolus and one a little behind. Having wrapped the whole circumference of the ankle, including the malleoli and heel, in a heavy pledget of cotton, laid underneath the adhesive bands, a roller is now to be applied from the toes upward as far as the knee, and secured with a little flour paste or starch. Before fastening the bands to the foot-block, each band should be twisted into a rope below the foot; and to prevent any degree of lateral pressure upon the sides of the ankle and foot, already tolerably protected by the cotton, a piece of thin board, longer than the width of the ankle, and notched at each extremity, should be placed between the bands below the bottom of the foot.

The attempt to use the adhesive plaster also as a perineal band, for the purpose of making counter-extension, does not seem to have been equally successful, and we have still to incur the risk of ulcerations, &c., from this portion of our dressings; fortunately, however, the perineal band never completely ligates the limb, and it has rarely, therefore, been found so mischievous as the ordinary extending bands at the ankle. In the fracture apparatus lately invented by the Burges, the peculiar mode of action of the perineal band, avoiding, as it does, pressure upon the front of the groin, diminishes still further this danger. For a description of the mode of constructing properly a perineal band, I will refer you to the excellent

papers on "Fractures of the Lower Extremities," by Reynell Coates, of Philadelphia, published in the 20th vol. of the *Amer. Jour. of Med. Science*.

Following the suggestion made by Dr. Neill, who uses for the same purpose a Spanish windlass, I have had the foot-block of my splint so constructed as that counter-extension may be made at the same moment with the extension. The principle is the same as that applied in the ancient glosocomon described by most of the early surgical writers. The advantages of this method are that the counter-extension, as well as the extension, can be made slowly, steadily, and firmly; the patient cannot, if disposed to interfere with the dressings, loosen or disturb them; the limb is acted upon equally in each direction, and the rollers which secure the limb to the splint do not become drawn obliquely and disarranged by the daily attempts to increase or continue the extension. The danger only is, that, in the hands of inexperienced surgeons, too much force will be applied, and perineal ulcerations ensue.

With children I often employ only the simple splint, yet if the little patient is restive and disposed to throw himself about the bed, I prefer the double splint, to which is attached a screw of peculiar construction, called the "endless screw," the pattern for which was sent to me by some gentleman in Boston, whose name, I regret to say, I cannot now recall.

In all cases one should prefer to use side splints, carefully fitted; the whole, both side and long splints, to be applied to the limb over neatly made cotton pads or junks, of which there ought to be laid upon every part of the leg and thigh as many as may be necessary to prevent unequal pressure.

To this general plan of treatment now recommended for fractures of the femur, the writer makes no exceptions, unless it be in the case of a fracture of the neck of the femur, occurring in old persons, or in fractures just above the condyles, where the direction of the fracture is obliquely downward and forward; in the former of which no rule can be adopted, except that the patient should be placed usually in that position which may be found most comfortable; and in the latter of which, the flexed position seems, indeed, the most rational, yet, according to the evidences furnished by Malgaigne, its advantages over the straight position are far from being established. In fractures occurring just below the trochanter minor, my own experience agrees with that of the distinguished author just

quoted, that the straight position is still the best; an experience which seems to me also to admit of a satisfactory explanation. It is not directly upward, but rather outward and upward, that the lower end of the proximal fragment is thrown by the action of the psoas magnus and iliacus internus, so that in order to meet the supposed indication it will be necessary to carry the lower part of the limb outward also, a position which would certainly be found very inconvenient, if not actually impracticable in the majority of cases.

Nor can the tendency of the upper fragment to rise, and consequently to separate from the lower, be effectually met by posture alone, unless the thigh is completely flexed upon the body, a position again which will be found inconvenient, if not impossible.

It is apparent, therefore, that by posture alone we can only very imperfectly accomplish an approximation of the fragments; while we have almost entirely, whatever may be said to the contrary, deprived ourselves of all means of extension and counter-extension. On the other hand, admitting that by the straight position we have momentarily provoked a resistance which flexion of the limb might have prevented, we have, at the same time, slowly, but permanently, overcome this resistance by steady extension. In the one case, we have made a present gain, but a final loss; and in the other, a present loss results in our final gain. So it is that experience has shown in more than one case which has come under our observation, that although for a few moments, or perhaps for several hours after the straight position has been assumed in these fractures, the upper fragment will rise spasmodically, after a time, longer or shorter, and especially after the application of the side splints and bandages, this tendency will cease altogether.

My convictions upon this subject are clear, but since they do not correspond with the convictions of a pretty large proportion of practical surgeons, I am compelled to regard the question of posture in this fracture as still open. I will take the liberty to suggest, however, that it is by the results of carefully recorded experience alone that it can ever be determined, and not by any reference to physiological or anatomical arguments; which I suspect have had hitherto much more influence with surgeons in respect to this question than personal observation.

Note.—For an ingenious mode of dressing *compound* fractures of the thigh or leg, see apparatus invented by A. Hays, of Madison, Ind., in *Trans. of Amer. Med. Association*, vol. iii., 382.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

The Abortion Case—The Parties held to Bail in \$10,000 each.

“On Saturday, Mr. James W. Temple and Dr. James Swanze were taken before Judge R. S. Wilson, of the Recorder’s Court, on a writ of *habeas corpus*, and, after hearing testimony and argument in the case, the judge decided to admit them to bail in the sum of \$10,000 each, to answer the charge of manslaughter.

“The medical testimony given in the court was in the highest degree conflicting, illustrating the old adage that ‘doctors differ.’

“Prof. D. Brainard testified to the effect that the production of abortion by mechanical means which rupture the membranes was not at all dangerous or injurious to life, if proper care were taken of the person subsequently. He said he considered that all the leading medical writers sustained him in this position. A patient who had advanced as far as the third month of pregnancy, would be no more injured by the production of an abortion than she would have been by allowing the full period to pass, and the child to come into the world in the natural way. He stated that not one case in two hundred, where abortion was produced at the third month of pregnancy, would prove fatal; but, to make it safe, he would say one case in one hundred.

“Prof. N. S. Davis, on the other hand, testified that he looked upon the production of abortion by mechanical means as in the highest degree dangerous, and also as highly injurious to the system in its subsequent effects. Out of twenty cases of abortion that came under his knowledge, he could not recollect a single case where permanent and serious injury was not the result.

“The question arises as to which of the learned and talented professors is right, for certainly their testimony is widely different.”
—*Chicago Paper.*

The case here referred to, on which this testimony was given, occurred in Chicago, and was one of those of so frequent occurrence as to have ceased to startle the communities in which they occur from novelty of crime, and commonly excite more of morbid sympathy and commiseration for the parties concerned, than any healthful expression of opinion and decided action toward meteing out justice to the guilty ones.

Such occurrences, indeed, excite no such interest as a beer-house row or a street garroting, though it must be evident to any impartial and reflecting individual that the crime is as much more heinous and indicative of a degraded sense of morality and responsibility, by as

much as the iniquity of a cool, deliberate assassination of an innocent, unresisting and utterly helpless being, with the danger of a double murder, exceeds that of the unpremeditated angry blow given in the heat of passion, which makes a thoughtless man an unwilling and repentant murderer; or as it exceeds the guilt of the goaded victim of avarice and guilty passions, who becomes the bold robber of a man's valuables, while he spares his life.

We said that these crimes have ceased to startle from their novelty, and even while we are writing this our own papers contain the report of a similar case in our own city, which has resulted in the death of both mother and child.

The object of this paper, however, is not to remark upon particular circumstances of this case, nor has it reference to the crime of abortion in general, its danger and immorality, the legal responsibility of the parties engaged, nor to means for its suppression. Upon this subject we took occasion to express some opinions in a recent number, among which was the following; "that we did not believe any considerable number of the members of the regular profession in any manner countenanced, or even tacitly supported, the popular sentiment on this subject."

Our purpose now has reference to a portion of the evidence in the above report, which, coming from a man in Dr. Brainard's position, if not very surprising, is certainly—if contrary to good teaching, as we believe it is, as Dr. Davis believed, and as the evidence of leading authors conclusively shows—deserving of notice, from the authority which his position as a teacher might be supposed to impart to him, and the influence which might thence be exercised on the opinions of junior members of the profession.

And, if he is sustained in these views, as he asserts, by good authority, it is well to know it; and if otherwise, as we could scarcely attribute the expression of such an opinion, in one holding his position as a teacher, to ignorance of authorities, it must arise from other causes. And when he thus dogmatically gives an opinion so opposed to the teachings of the best, and, indeed, of all authors on the subject, as we think we can show, we are inclined to ask ourselves if we uttered a mistaken opinion, that very few members of the regular profession in any manner countenanced, or even tacitly supported, the popular sentiment on this subject—at least as far as regards the danger of the accident; for this is evidently supporting the popular sentiment as regards the danger; and if we find such opinions among the teachers, how much more shall we not among the pupils; and, indeed, we fear there are no small number who construe their ideas of the immorality of the business according to their views of the danger.

But we will not judge Dr. B. without evidence. What are the statements of the authorities on this subject? and do they sustain Dr. B. in his statement, "*that the production of abortion by mechanical means which rupture the membranes was not at all dangerous or injurious to life, if proper care were taken of the patient subsequently?*"

And again, "*that a patient who had advanced as far as the third month of pregnancy, would no more be injured by the production of an abortion than she would have been by allowing the full period to pass, and the child to come into the world in the natural way.*"

Although this accident is so very common, occurring frequently in the experience of every practitioner—so frequent that, according to Dr. Whitehead's* statistics, of 2,000 cases of pregnancy, 1 in 7 terminated in abortion—yet there is no want of evidence from good authorities to show that it is not without danger, even when resulting from natural causes. It is not without immediate danger to life, though the greater danger arises from the more remote but nevertheless direct sequences of the accident, which from the fact of their remoteness and chronic course, are less liable to be regarded as the consequences; and hence arises the idea of its innocuousness.

Thus says Ramsbotham on this subject: †

"Although, however, the discharge is the only symptom which need produce immediate alarm, abortions, as is well observed by Denman, especially if repeated, may either occasion local disease, or the time of an abortion is an era from which we may date the commencement of some *dangerous diseases of the uterus or its appendages.*"

"Abortion not unfrequently is also followed by hysteritis, inflammation of the uterine veins, and some of the other inflammatory diseases of childbed;" and again: ‡

"The principal, if not only source of peril, is loss of blood."

This is, indeed, the great source of danger at this period, (3d month,) at which time Dr. B. states that a patient "*would no more be injured by the production of an abortion than she would have been by allowing the full time to pass, and the child to come into the world in the natural way.*"

Says Churchill§ on this point:

"It is always an untoward event, but not to be considered *dangerous*, unless accompanied by great hemorrhage;" and again: ||

"Generally speaking, the flooding is less the nearer gestation is to completion."

And thus Cazeaux: ¶

"Whence I conclude that an abortion is then (third or fourth month) more *grave and painful* to the patient, as also more *dangerous* than in the fifth or sixth."

Colombat ** also remarks as follows:

"The prognosis of abortion regards both mother and child; for the former it is generally *more dangerous* than labor, because the latter is the performance of a natural function, while miscarriage is a disease.

* Whitehead on Abortion and Sterility.

† Ramsbotham's Process of Parturition, page 487.

‡ Ibid. page 486.

§ Churchill's Midwifery, page 180.

|| Ibid. 184.

¶ Cazeaux's Midwifery. " 265.

** Colombat on Diseases of Females, page 591.

And thus Bennet : *

"Abortion is often occasioned by inflammatory ulcerations of the cervix uteri, and often occasions it."

And thus Lisfranc : †

"Abortion in particular has been designated as a frequent and even as a formidable, cause of organic affections of the uterus."

Such are the opinions of some recognized authorities, in regard to the danger of abortion resulting from natural causes. If such danger exists in natural abortion, how much more must it be in those artificially induced. On this point, we will also take the evidence of leading "medical writers," and first that of statistics, such as we are enabled to adduce.

Churchhill collates from various authors 706 cases in which premature artificial delivery was effected for various causes. In these, death to the mother was the result in twenty-five, and from the means made use of, in twenty, or about one in thirty-five.

On this point says M. Chailly : ‡

"If we consult the statistics published in 1838 by M. Stolz, it will be seen that in 211 premature artificial deliveries more than one half the children survived, and *scarcely one mother in fifteen died.*"

These statistics are also adduced by the authors to show the comparative safety of this method of procedure. They were, too, cases occurring in the hands of teachers and recognized authorities in medicine, and against whom, therefore, the charge of incapacity and neglect of proper subsequent care could not be brought.

There is no little difference, it will be observed, between one death in fifteen, according to Stolz, or one in thirty-five, according to Churchhill, and one in two hundred, or even in one hundred, according to Dr. Brainard's opinion. But perhaps Doct. B. may object to these facts, that here the operation was performed late in pregnancy, after quickening, with the view of affording a chance for a viable child, and that the danger was proportionately increased as the pregnancy had advanced toward full term, and that at or about the third month the danger will be far less. Now, if this were so, is it probable there should be as much difference in the danger attending the operation about the third month, and that after quickening up to the seventh, as would be indicated by these figures? But, however much less the danger may be in natural abortions at this early period, and we have shown that even this is not admitted by all good authorities, still in artificially, and especially mechanically, induced abortions at this period the case is widely different. Here the danger is increased, as appears very evident, by just as much as the difficulty of safely manipulating with instruments about the undeveloped os and cervix at this early period exceeds that of manipulating in a later and more developed stage. But we will show what this danger is, from the best authorities.

* Bennet on the Uterus, page 321.

† Lisfranc do " 85.

‡ Chailly's Midwifery, page 131.

Thus says Cazeaux : *

"The prognosis varies with the cause of the accident. Thus the most serious of all is an abortion brought on either by internal remedies or by manipulation."

And thus Columbat : †

"The most dangerous (is) that which has been occasioned by a violent exciting, without any predisposing cause."

Velpeau ‡ makes the following statement in relation to the consequences of using instruments to procure abortion :

"Those who make use of them most frequently fail in attaining their object, and succeed only in seriously injuring the womb."

And thus again Dr. Smith : §

"Abortion is in general injurious to health, and is seldom unaccompanied with suffering. The administration of emenagogues to force a separation of the ovum where the constitution has no tendency to throw it off, is highly *dangerous to the mother*. No drug can act in this way upon the uterus, but by involving it in a violent shock given to the general system. It has frequently occurred *that the unhappy mother has herself been the sacrifice*, while the object intended has not been accomplished."

And then again, Dr. Burns, || who writes as follows :

"It cannot be too generally known that when those medicines (emenagogues) do procure abortion, the mother can seldom survive their effects."

Again Doct. Michel Ryan : ¶

"Irritation of the cervix uteri by mechanical means, and piercing the membranes justify the truth of the remark '*sæpe suos utero quæ necat ipsa perit*.'"

Translation—frequently, she who would destroy her fœtal offspring perishes herself.

And again, Baitley, ** as follows :

"Every woman who attempts to promote abortion *does it at the hazard of her life*."

And again, Male, †† who writes :

"There is no drug which will produce miscarriage in women who are not predisposed to it, without acting violently on their system, and *probably endangering their lives*."

Dr. Meigs ‡‡ writes :

"But shall a man feel justified to enter on an important operation, one *admitted to be dangerous to the mother*, and uncertain for the child in the proportion to fifty per cent., upon the ground of a mere peradventure?"

* Cazeaux's Midwifery, Am. Ed., page 265.

† Columbat's Diseases of Females, Am. Ed., page 591.

‡ Quoted from Beck's Medical Jurisprudence, page 444.

§ Smith's Principles of Forensic Medicine, page 295.

|| Burn's "Medicine, page 283.

¶ Manuel of Midwifery, by Michel Ryan.

** Baitley's Treatise on Forensic Medicine, page 5.

†† Male, Epitome of Medical Jurisprudence.

‡‡ Diseases of Females.

Dr. Beek* characterizes the introduction of instruments into the womb for the purpose of rupturing the membrane as *villainous* practice, and draws the following conclusions on this subject:

1st. "That all of them (means of producing abortion) are uncertain in their operation upon the *fœtus*."

2nd. "*That they always endanger the life of the mother.*"

3rd. "That they sometimes *destroy the mother* without affecting the *fœtus*."

Again we quote from Farr: †

"The life of the mother, as well as the child is *endangered by such exhibitions.*"

Such are the views of some of our authors respecting the danger of inducing abortion. Had we the works of other writers on this subject to refer to, we doubt not that much more corroborating testimony might be adduced.

We will now offer some evidence respecting the particular source of danger in the use of instruments for the puncturing the membranes; and let our readers judge from this evidence whether this danger is not far greater at the third month than at any consecutive period; that the danger from this source will be just in proportion to the earliness of the stage of pregnancy in which these means are employed.

Thus remarks Dr. Taylor: ‡

"Mechanical means are undoubtedly more effective in producing abortion than medical substances: yet, from the fact of such attempts being made by ignorant persons, the woman generally dies from hysteritis, peritonitis, or other serious after-consequences."

And again:

"It is obvious that this mode of perpetrating abortion is only likely to succeed in the hands of persons *who have a complete anatomical knowledge of the parts.*"

This is an admission of the danger from the operation performed by inexperienced hands. But the operation is not attempted alone by ignorant persons, as this writer seems to think, nor is it alone unsuccessful with such persons, as he also asserts. That it is not attempted alone by ignorant persons, the statistics we have quoted will show that it is not always successful with intelligent and experienced physicians, and those having a complete anatomical knowledge, particularly in the early months, we will proceed to show.

"Thus Dr. Gooch relates that Dr. Wm. Hunter attempted this operation (introducing an instrument to puncture the membranes) on a young woman at about the third month in pregnancy. He found that he several times punctured the *cervix uteri*, and the case terminated fatally."

"If this happened to one of so much anatomical knowledge and skill, how much more probable must it be in the hands of those

* Beck's Medical Jurisprudence.

† Beck's Medical Jurisprudence, page 70.

‡ Taylor's Medical Jurisprudence.

ignorant men, by whom, for the purpose alluded to, the operation is sometimes undertaken. No doubt these attempts often prove fatal, but the murdered do not tell tales."

On this point, Ramsbotham also remarks :

"That the performance of the operation demands a most accurate knowledge of the anatomy of the ovum and the maternal structures, as well as of the state of development which the neck of the uterus assumes at different periods of pregnancy."

Now, consider that the necessity for this operation arises so very seldom, and almost never at the third month, and it is apparent that the skill derived from experience, in legitimate practice, is not easily obtained, and hence the greater likelihood of injury resulting to the cervix and os uteri.

Moreover, it is generally admitted, and has been shown conclusively by eminent obstetric writers, that morbid conditions of the os uteri, ulcerations and inflammatory conditions, are one of the most frequent causes of abortion. Hence we see why abortions would be likely to follow in these cases, at the expense of injury, perhaps permanent, to the mother, and the strong presumption that abortion in the early months, by mechanical means, is the result of such injuries to the mother rather than of injury to the ovum.

What the danger, both immediate and ultimate, is, from these injuries, should be known to every medical man, and we presume it is.—*Peninsular Journal of Medicine.* E. P. C.

Modern Therapeutics.

The great aim and end of medical science is to cure disease. The investigations of anatomy, the researches of physiology, the exploration of medicinal agents in the domain of natural history, all tend to the one great object, the alleviation of suffering and of pain. The pathologist and the morbid anatomist may discover the causes which poison the fluids or disarrange the solid textures of the body ; but their science is of little value in the eyes of the public, unless they also devise remedies for the restoration of the affected parts to a healthy state. Mankind, in all ranks and in all countries, will naturally fly for succor, in the hour of sickness and infirmity, to him who possesses the power, or to him who pretends to possess it, of most effectually curing human maladies. One pretender affects to cure all his patients by drastic pills of gamboge and colocynth ; another cures or kills them with lobelia and cayenne pepper ; a third set of quacks allow the sick to perish, while they amuse them by the administration of inert and useless globules ; a fourth sluice their victims with hot and cold water, and if they escape from death, their cases are called cures. The newspapers teem with advertisements in praise of Dr. Lohock's infallible tincture, of Widow Wench's wonderful pills, of Professor Belloway's miraculous ointment, of Dr. Broadway's inestimable balsam ; and the

public buys the tincture, and the pills, and the balsam, and the ointment, and the government derives a large revenue from the stamps, and the cunning people behind the scenes who compound the medicines, pocket immense incomes, while they laugh in their sleeve at the folly and credulity of their dupes.

But, putting out of the question the pretensions of quackery, it is indisputable that the records of legitimate medicine; so far as treatment is concerned, contain such a heterogeneous assemblage of different and often conflicting views, as to give rise in some quarters to the conclusion, which is not unnatural, that the principles of medicine are really unsettled, and that the art itself is purely an arbitrary one, depending on the caprice of the practitioner.

Still, those who draw such hasty inferences from imperfect data, should be informed that medicine, in its very nature, cannot be regarded as a mathematical science; for the circumstances are so continually changed by a host of modifying influences, that the results must necessarily be as various as the conditions which give rise to them. Passing from the abstract to the concrete, it is evident that the same disease affecting a delicate child, a nervous female, or a robust man, must require very different treatment; and it is equally demonstrable that the same disease occurring in different climates and at different periods, will likewise necessitate a corresponding variety of therapeutical ministrations.

The period is not very far distant when the doctrines of the distinguished John Abernethy prevailed throughout the profession, and when it was assumed that nearly all diseases could be cured by blue pills and the black draught; and the influence of these doctrines still prevails in the minds of several practitioners of the present day. But while we allege that the precepts of the great surgeon of St. Bartholomew's were carried too far by the practice of his overzealous disciples, yet we cannot for a moment withhold the tribute of our admiration for the man who, by a bold effort of genius, heightened and even recommended by a certain eccentricity of conduct and manner, rescued surgery from a mere mechanical art, and caused it to become one of the noblest of sciences; teaching that the surgeon who saved a limb was entitled to far higher praise than he who removed it, whatever may have been the degree of dexterity displayed in the operation.

About the same period when Abernethy was inculcating the necessity of the constitutional treatment of local diseases, the treatment of fevers consisted in the early and copious abstraction of blood, by which, as it was taught, and as indeed experience then proved, that class of diseases was most speedily and effectually removed or relieved. Mercurials and purgatives were used in such cases as adjuncts to venesection, and the patients not only bore the treatment, but attributed their cures to its prompt and unsparing adoption.

In the whole class of inflammatory and congestive diseases, bleeding was of course the sheet anchor, and calomel, in prodigious quantities, was thrown into the system, with the effect of causing

profuse salivation, but, at the same time, as it appeared, of subduing the inflammatory diathesis. We ourselves, and many others, in our early days, practiced this treatment under the direction of our seniors, and we cannot affirm with truth that the practice was unsuccessful, or that it appeared unjustifiable by the results. Subsequent experience and observation, however, have shown that such active treatment in the present day is unnecessary, if not injurious; and that even inflammatory diseases may be and are often cured without either bleeding or mercury.

It may probably be said that our predecessors mistook the nature of diseases, and that the present generation is gifted with greater enlightenment than their forefathers; that the diseases which now exhibit themselves to our notice are essentially the same as those which prevailed at the beginning of the nineteenth century; and that therefore all that our ancestors did was wrong, and all that we and some of our contemporaries do is right.

But before arriving at so sweeping a conclusion it is only fair to inquire, as a mere matter of speculation, whether the circumstances which cause or cure diseases have not altered within the last fifty years; whether certain types of disease have not disappeared and others have occupied their place; and whether new diseases have not sprung up in latter times. The synocha of Cullen, of the very existence of which some distinguished men of the present day entertain strong doubts, has certainly disappeared from among us, while the typhoid fever, so admirably described by Dr. Jenner, is far more frequently observed than was formerly the case. The Asiatic cholera, with its rapid depression of the system and speedy extinction of life, is certainly a new type of disease in this country, even if we hesitate to admit that it is actually a new disease; and that influenza, in its severe form, is a new type of disease, there can be very little doubt. It is probably of equal certainty that while sthenic inflammatory diseases have become comparatively infrequent, neuralgia and other affections, characterized by debility, have disproportionately increased, and the tendency of fevers of all kinds to run into a low and exhausting form is too notorious a fact to need comment. The recent prevalence of boils and carbuncles, also manifestly attended with debility, is too striking to escape notice.

The researches of modern science have brought to light the existence of a host of diseases, which, whether they formerly prevailed or not, were certainly not described until of late years. The granular degeneration of the kidneys, and the whole series of fatty degenerations of all the organs of the body, the disease called cirrhosis of the liver, the disease of the supra-renal capsules, giving rise to the phenomenon of bronzed skin—all these are the discoveries of the present day: and, while we are far from denying that they may have existed in former times, we are, we think, at least warranted in supposing that they are more prevalent now than in previous epochs. The plague has certainly disappeared from this country since the fire of London; the sweating sickness, which once periodically swept off great

numbers of the population, is now equally unknown ; small-pox mortality has diminished most strikingly under the influence of vaccination ; and, as we have just shown, certain types of disease have faded away, although the diseases themselves may remain ; and there is certainly nothing extravagant in the assumption that a new class of diseases may have sprung up to replace those which have disappeared, and that the treatment of the sick may accordingly require modification, in proportion to the variety displayed in the maladies under which they labor.

The habits of the people, more especially of the higher classes, have also materially changed. The time when a man drank his two or three bottles of wine a day, and considered it the height of hospitality to make all his friends do the same, has passed away ; and with the disappearance of such habits, gouty affections have proportionally diminished, and the plethoric diathesis, bearing and perhaps demanding strenuous depletion, is comparatively infrequent ; but in place of these and similar constitutional maladies, a whole host of depressing agents, in the shape of neuralgia, insanity, influenza, cholera, low fever, fatty degeneration, have sprung up in countless multitudes to threaten human life and destroy human happiness. The butcher and the wine merchant might be regarded, at the commencement of the present century, as the great authors of disease and its consequences ; but now they are valuable assistants to the physician in the restoration of health. In a statistical point of view, the consumption of wine, which might be supposed to have diminished, as a result of the altered habits of the people, has largely increased, from its more general use, and from its greatly increased employment as a medicine.

While, too, the luxury and over-indulgence of the middle and higher classes have been curtailed, it may perhaps be said that the comforts of the lower classes have been increased, though not to such an extent as might be wished.

Our soldiers and our sailors, except in certain unfortunate instances, which need not be recalled to remembrance, are well fed and well clothed, and epidemic disease has become among those classes comparatively rare ; while the condition of the prisoner and the lunatic pauper has been so much improved as to excite the invidious remark, that poverty alone receives far less commiseration at the hands of the state than insanity or crime.

Such being the influences now in operation to alter or modify the habits of the people, and experience having shown us that the type of disease is subject to periodical variations, it cannot cause surprise that modes of medical treatment must differ at different periods.

We throw out the above hints upon a subject which we deem to be of the utmost importance ; we offer no dogmatic opinions of our own, but we leave the investigation to the deep attention of the medical profession.—*Med. Times and Gazette.*

Percival Pott's Lectures on Surgery.

We present, to-day, from a manuscript book denominated "THE CHIRURGICAL LECTURES OF PERCIVAL POTT, ESQ.," a specimen of what we believe to be the original lectures of this distinguished Surgeon. The book from whence it is taken belongs to the library of the Medico-Chirurgical College, and was deposited, Sept. 9th, 1851, by Dr. George W. Rogers. He writes on a fly-leaf: "This MS. was obtained from the great nephew of the author, by Dr. J. F. Rogers while on a visit to the Western Islands in the year 1842."

THE INTRODUCTORY LECTURE.

Gentlemen, The intention of ye following lectures is to give ayon as great an Idea of ye practice of Surgiry as I am able,—for which purpose I shall shew in what manner and with what Instruments each Operation is to be performed also when it is necessary to perform, because we ought never to have recourse to ye knife, when a gentler method will succeed, neither ought we in any Operation to be more expeditious than is consistant with ye wellfare of our patient, for tho' it may attract the notice of the spectators, yet by being in a hurry, something of greater consequence may be omitted than their opinion of y'r dexterity, as parts may be devided which out not to be, so yt ye operation will not be attended with ye success we w'd wish, by which means the Surgeons Character is more injured than if he had been longer ab't it, therefore we ought never to hurry an operation. Calmness and Deliberation being more likely to succeed than celerity I dont mean to insinuate by this that we sho'd as if we were asleep or had no feeling for our patients, In regard for the necessary qualifications for a Surgeon, Anatomy Claims the first Consideration, also Phisiology and some knowledge of Physic is absolutely necessary; for we must first be acquainted with the state of the parts in health before we can judge in what manner the are altered by disease—we must be acquainted with ye Animal Œconomy, the course of the blood vessels and nerves and use of musseles, the fabric and connexion of the bones, their situation &c also some knowledge of Pphysic as to relate a simptomatic fever. Diarrhœa &c. whenever the shall happen in Consequence of an operation, wound fracture &c. some skill in mechanics will be useful, as will be evedent in the sequel—also a temper of mind that can sustain the Cries of the patient without being at all affected a steady hand and Clear sight are requisite and always make it a rule to perform an operation with as few Instruments as possible for it is evident where an operation can be performed with 3 instruments, it is much easier to yourself and better for yr patient, than if you had used 5 or 6—the end you are to aim at is to get a knowledge of the human structure and of disseses, and from these learn the best method how to relive them. Dissections with your own hands will not only Inform you of the Connexions of the different parts but will also give you a Dexterity which none can require but by practice—A distinction has prevailed between Physic and Surgery, which are spoke of as two separat arts—to the Contrary it is evidently and demonstrably true,

for the are naturally indivisible, the Physician will be very deficient if he has not made himself acquainted with the rational and fundamental principal of surgery—on the other hand he will make a wretched practioner in Surgery, who knowes not the symptoms and causes further than the luxation of a bone which in general will be all left to ourselves. In an hospital you will have frequent opportunities of this kind of knowledge, and if you omit it the fault will be yours and you will have a great deal to answer for.

The first aim of every practioner should be to get a clear idea of what he means to do, the structure of the parts affected and the principals laid down by others—one thing in particular you should carry in your mind always, that whatever you have to do on a living animal, you have it in your power to increase his pain, under a Continuation of which no act of nature can be performed—you will find it therefore a considerable part of your duty, ye understanding the doctrine of Irritability and Insensibility of p'ts therefore consider always what pain is and its most remote consequences upon the animal and that you will have nothing to blame yourselves with.

Secret Medicines.—[We ask attention to the following remarks, extracted from an editorial article in the *Lancet*, (June 6) because the public seem not to have a just appreciation of the ethics of secrecy in medicine] :—

“In pursuance of our inquiry into the ethics of ‘secrecy,’ we beg to-day to call the attention of our readers to the false analogies put forward by the supporters of trading in occult remedies.

“In the first place, it is said there is something offered to society for sale. If society wants it, let it bid; let it buy. This is the usual course, and why must it be reversed? The reason why is this: An invention in art or manufactures, or a discovery in the applied sciences, has a money value. This money value is an unknown quantity; it may be great, or it may be small, but it is not the less a money value. The inability to determine the exact value of the commodity, does not preclude the possibility of a bargain upon sound principles; society may lose in the transaction, or the inventor may lose; but the loss is a money loss on either side, accordingly as society may have over or underrated the value of the discovery. And here the question terminates. Such bargains are made every day; values fluctuate, or are in their nature indeterminate, and speculators run their risk. But the profit and loss are capable of comparison. A gain in money is comparable to a loss in money. It is so many pounds better. But who can compare pain and life with money? No one has ever yet determined how sharp a pang may, upon commercial principles, be relieved for a guinea; neither have we as yet, happily, computed the value of an hour or even a minute of life in pounds sterling. It is obvious, then,

that as the profit and the loss in the sale of medical knowledge are not like values, the analogy between such a transaction and the operations of trade, or even the sale of inventions having a pecuniary measure of value, is a false one. It is a wretched sham, put forward to blind those who have not sufficient dialectical skill to unmask the sophism at which their hearts and consciences rebel.

“Let us examine another of the defences. It is urged that after all, the vendor of a medical secret is only doing as an individual what the profession does as a body; that he is putting a price upon that which society is ignorant of and requires; that not only does the profession of medicine price its assistance and succour, but all who possess special skill or knowledge do the same; that a charge of trading upon misery is as applicable to the body as to the individual. But it is *not* so. This *tu quoque* cry, this other false analogy, even though boldly asserted, is but a sorry pretence, when looked at closely. Medical men price their labor, not their knowledge. The labor, being skilled labor, commands a more or less high price. The repute of an individual makes his labor more valuable; the demand raises the price. Not of his skill, but of his labor. And this is a sound commercial principle, the most high-minded may profit by it, the most delicate and sensitive minds need not shrink from such a result. And why? Because there is a legitimate relation between *labor* and *money*; none between knowledge of what is *priceless* and *money*. To go a step further, what is the practitioner paid for? Certainly not for a secret—not even for his knowledge—but only for his application of what is distributed among thousands. If A refuses to act, B will. Both A and B are in possession of something hidden from the public, or, rather unknown to the public. If A and B, and all the other medical practitioners combined, and declined to render their services for less than an enormous reward, then they would be pricing their knowledge—trading upon life and pain—selling a secret, in short. What does secreting a remedy for individual benefit amount to, then? what does it represent? Nothing more or less than a gigantic combination. The individual possesses a secret which is peculiarly his own, and not more so, as the medical knowledge of the body of the profession. Let us imagine the profession to combine and act as an individual—to say to society: ‘We have knowledge, and you need it; you suffer, we can give you ease, you are about to die, and we can save you. But first make us rich, give us dignities, place us upon the pinnacle of human prosperity, and then the knowledge is yours.’ This is the true analogy. Who would defend us in such a course? Should we not, as a body, deserve the execration of society? Are there any terms of reproach adequate to express the inhumanity, selfishness, and turpitude of such conduct?

“Space prevents us from doing more than enumerating some subsidiary incentives to publicity in relation to medical discoveries. We should never forget that we are the legatees of our predecessors. Hitherto, all great discoveries in medicine have come down to us without a price. We owe to posterity a debt which we cannot

pay to those who have gone down to the grave in honor. It is our business to keep up, in unbroken succession, the long list of benefactions in which we have all been participators. To begin now, in the present day, to fall away from the charity of our predecessors, is sacrilege—nothing more nor less than ‘rank blasphemy’ against the memory of those departed worthies, who, in all singleness of purpose, sought not their own private advantage, but how they might diminish the aggregate of human suffering. Again, it may be as well to say, that no man has a right to wealth. All who work have a right to subsistence in their sphere of life, even to competence, but not to great riches. If wealth pours in, it is probably deserved ; it is very likely the meed of merit. But who looks forward to *wealth* as something he can *claim* in return for his services or discoveries as an indefeasible right, has far mistaken his moral position. Finally, our mission is to work, and often to fail in securing our reward ; not to trade in tears, or to put a money value upon the pains and diseases which afflict our species.”—*Medical News and Library.*

Homeopathy in Hospitals.

The experiment of homeopathy as applied to hospital practice has been tried in several instances, and has invariably proved a failure. The example which has been most frequently appealed to as a triumphant proof of the success of Hahnemann’s doctrine is the Homeopathic Hospital at Vienna, or rather in the suburbs of that city, under the charge of Dr. Fleischmann, the statistics of which have been frequently cited as an instance of a low degree of mortality hitherto unparalleled. But these statistics have been proved, by Dr. Gardner, of Edinburg, in so clear a manner to be fraudulent, that the homeopaths themselves are heartily ashamed of them and have ceased to quote them. Lately a homeopathic hospital, which had been for some time in a languishing condition in London, has been closed as a dead failure. Under these circumstances it may appear surprising that the Board of Health of the city of Chicago have appointed two Boards of Medical Attendants in the City Hospital lately established there, one of physicians, the other of homeopaths, to each of which separate wards are assigned ; and that the governors of Bellevue hospital in the city of New York, have established a homeopathic ward in that great institution.

The ignorance displayed by some of the guardians of public health in this country is lamentable. An examination into the condition of homeopathy in America, at the present time, will explain in a measure these strange occurrences. The fact is, that homeopathy, as such, no longer exists among us. The absurdity of infinitesimal doses, so utterly repugnant to common sense, and so disastrous in its application to cases of disease which require treatment by drugs, is abandoned by the great majority of practitioners of homeopathy,

who have had the sagacity to perceive that otherwise their practice would abandon them. No sane homeopath now treats a patient, who has swallowed poison, with infinitesimals, nor gives such medicines in a case of diarrhoea, cholera infantum, fever and ague, and many other diseases in which medicine is of specific use. It is true that in many cases of self-limited disease, in which *no medicine* is required, he administers infinitesimals in order to preserve the appearance of consistency; and it is true that, as a general rule, he gives his medicine, when he gives any, in as concentrated a form as possible, for the same reason, though we have seen prescriptions written by homeopaths in large practice, which differed neither in substance nor in dose from those of regular physicians. To be sure, he *pretends* to practice on the principle of *similia similibus*; but as his practice resembles that of regular physicians, he maintains that *they* unconsciously practice on the same principle—just as M. Jourdain had been speaking prose all his life without knowing it.

It may be asked, if the practice of homeopaths be the same as that of regular physicians, what objection can there be to employing them in hospitals? There are two very good objections: in the first place, a man whose practice is a deliberate fraud upon the understanding of his clients, is not fit to hold any office of trust, and his appointment to such office is an insult to a liberal profession. In the second place, homeopaths generally are notoriously ignorant of the principles of medicine and of the collateral sciences so necessary to the successful practice of the art of healing. We all see almost daily instances of their errors in diagnosis, and in many cases such errors have proved fatal to the patient. No one *can* be accomplished in the science and art of medicine and be a homeopath, and we have yet to learn that such an instance has occurred.

The Perils of Circumstantial Evidence.—Dr. Fletcher, of Finsbury chapel, narrates the case of Eliza Fenning, which was alluded to by the Dean of the Faculty, in the recent Edinburgh trial:—"I was sent to visit on a Sabbath day, Eliza Fenning in prison. In company with the ordinary of Newgate, I conversed and prayed with her. She was dressed in white, an emblem of her innocence. In the same garments she suffered death as a criminal on the following day. I had no opportunity of judging as to her innocence. The expression of her countenance is literally stereotyped upon my heart. From what was communicated to me some years after, I can now explain it. It was the demonstration of injured innocence. When the event of her execution was almost forgotten, a baker, dying in a work-house in the vicinity of London, said, "My mind is heavily burdened. I cannot die until I make the following communication: Eliza Fenning died innocent of the crime for which she suffered. I am the murderer of her mistress. I put the poison into the morsel which effected her death. On the trial the jury concluded it must have been the cook who administered the poison, as they had not the slightest clue to suspect the baker."

The Boston "Spiritual" Award.—The following is the formal "award of the committee upon the question in controversy between the Boston Courier and Dr. H. F. Gardner, being the genuineness or falsehood of the so-called phenomena of spiritualism :"

The committee award that Dr. Gardner, having failed to produce before them an agent or medium who "communicated a word imparted to the spirits in an adjoining room," "who read a word in English written inside a book, or folded sheet of paper," who answered any questions "which the superior intelligence must be able to answer," who "tilted a piano without touching it, or caused a chair to move a foot," and having failed to exhibit to the committee any phenomenon which, under the widest latitude of interpretation, could be regarded as equivalent to either of these proposed tests, or any phenomenon which required for its production, or in any manner indicated a force which could technically be denominated spiritual, or which was hitherto unknown to science, or a phenomenon of which the cause was not palpable to the committee, is, therefore, not entitled to claim from the Boston Courier the proposed premium of five hundred dollars.

It is the opinion of the committee, derived from observation, that any connection with spiritualistic circles, so called, corrupts the morals and degrades the intellect. They, therefore, deem it their solemn duty to warn the community against this contaminating influence, which surely tends to lessen the truth of man and the purity of women.

The committee will publish a report of their proceedings, together with the results of additional investigations and other evidence, independent of the special case submitted to them, but bearing upon the subject of this stupendous delusion.

BENJ. PIERCE, Chairman.

LS. AGASSIZ,

B. A. GOULD, JR.,

E. N. HORSFORD.

Cambridge, Mass., June 27, 1857.

Sit Tibi Terra Levis!—The late John E. Thayer, of Boston, among other liberal provisions of his will, has bequeathed to the venerable Dr. James Jackson, the medical attendant of the family of the deceased for two generations, one thousand dollars a year during his life, to be continued to Mrs. Jackson if she survives her husband. It is also ordered that the first payment of this annuity shall be made in ten days after the will is proven. The intelligence of this bequest was imparted to "the good physician" on his eightieth birth-day. "We feel sure," says the *Boston Transcript*, "that no remembrance was ever made that will give more general and cordial satisfaction in the community;" and, we may add, in the profession. This solid man, Mr. Thayer, evidently had a soul. Peace to his ashes!

Syphilis and Syphilization—the Bane and the Antidote!

What vaccination has done for humanity in the case of small-pox, that syphilization is to do in the case of syphilis. Dr. Turenne, its enthusiastic inventor, sees, in a beatific vision, the horrid species, lues venerea, “improved from off the face of the earth” under the force of his discovery. In the mean time, and until this happy consummation has arrived, syphilization may be made to serve humanity in two ways. First, as a prophylactic; the individual being well and scientifically imbued with the virus of syphilis, is rendered ever after proof against all the miseries of this social evil; he is syphilis-proof. Secondly, the remedy drives out from the constitution the syphilis which it finds present there—the fire burns out the fire—and likewise renders the constitution impermeable to the assaults of the evil—*similia similibus*. This is setting a thief to catch a thief with a vengeance!

But what is syphilization? The term an author uses does not invariably convey, in all clearness to others, the idea which was present to his mind when he adopted it. To prevent misunderstanding, he therefore is accustomed to “define his terms;” and this must we do here for Dr. Turenne.

By comparing syphilization to vaccination, we readily arrive at the meaning of the word. The system is brought into a certain condition by the introduction of vaccine matter into it; this is vaccination. The system, again, is filled to saturation with the virus of chancre by inoculation; this is syphilization. The one arms the body against variola; the other arms it against syphilis.

The processes, however, by which these happy events are brought to completion are not equally simple. A microscopic puncture, an infinitesimal dose of vaccine matter, a satisfactory pustule, a few days constitutional uneasiness, and a laudable eschar—these are the moderate elements of a respectable vaccination. But considerably more complicated is the operation by which the system is worked up to chancre-proof pitch. No single inoculation of the venereal virus suffices to this end. Chancre after chancre must be established; day after day, week after week, aye! even month after month, must the operator persevere, until at last the signs appear which declare that the system has got its *quantum suff.*; and these longed-for signs are, that the body no longer responds to the inoculator’s intention; he may insert his virus, but he cannot any more produce a chancre. The system is impleted. The man is syphilized!

Thus it seems that the human individual does not yield kindly to this influence, as it does to the insertion of the vaccine, but it comes into it slowly and sulkily, as one might say. Step by step only is the friend or enemy let in, and vigorously does the natural constitution hold its own against the medicinal intruder.

Yet we are told that the grand point in the operation is to saturate the body rapidly; “when ’t is done, then ’twere well it were done quickly;” and to gain this end the practitioners of this novel art do not all operate alike. Men, of course, will differ on such minor

points. The Scandinavians and the Ultramontanes, Dr. Boeck and Dr. Sperino, etc., have all a like intent, but they work out the conclusion somewhat differently. One may, perhaps, content himself with a single chancre every other day, or every third day, until he finds the business is complete. Another, more heroically framed, will not be satisfied with less than a matter of three or four new chancres every three or four days, and some practice six to ten twice a week, thinking thereby to come more perfectly and quickly to their object. One, again, prefers the abdomen for the scene of his operations, and one the thighs and the arms; and another indifferently plies his work at either part. But, however they may differ in these trifling minutiae, they must persevere boldly in the work—they must not desist until their object is attained. Things are going well, they know, when the last made chancre shows a diminished vigor in comparison with its predecessors; and this, we are told, it almost invariably does—gradually, like the fading away of a mountain echo, does the power of the virus pass off, until, at last, the operator is rewarded in full by finding that his patient is completely unimpregnable to the most undeniable virus-inoculation. His operation produces no effects. The skin is no longer responsive to the insinuating lancet. The individual is in a state of syphilization!

Perhaps some curious person may here inquire how many chancres are required to effect a syphilization. He will, of course, infer from what has gone before, that the number is not a fixed one; but he may like to hear what, in the general run of things, has been the quantity which the operators found necessary. It is not easy to give any definite results on this point, but any one may calculate roughly, and nearly enough for all purposes, by recollecting that syphilization requires on an average half a year for its development, and that the most renowned operators establish on their patients from between six to ten chancres twice a week during the course. 683 inoculations (only 90 of which proved abortive) were required in one of Dr. Boeck's cases to dislodge an obstinate psoriasis syph.; but then the patient had been previously salivated, and previous mercurial treatment, they say, is found to interfere seriously with syphilization. Under all circumstances, however, the inoculations requisite must be counted by hundreds.

From this we see clearly that human nature does not, even under favorable circumstances, respond kindly to this process. Sometimes it is utterly rebellious; and so, "*non cuivis*," not to every one is the capacity for syphilization granted.

Now, it might be thought, by the inexperienced, that the production of some hundred chancres in the human body during the course of a few months would excite disturbances of a lively and unpleasant nature in the economy. Nothing of the sort! and let this be a lesson to *a priori* reasoners. Disturbances! why, the patients actually become fat and jolly under the process, and, what is equally surprising, so far from entering protests against the treatment, they court an operation which is to produce so remarkable a result; like those happy lambs of Pope, they

"Lick the hand just raised to," etc.

Other reflecting souls, again, may disturb themselves by lamenting over the sad, Lazarus-like condition into which these many sores must sometimes plunge their victim. They may conjure up scenes of erysipelas, and phagedæna, and extensive sloughings and suppurations. But let them not despair! These are all bugbears of the imagination. What is the use of reasoning in matters medical, from what has gone before in old routine? *Le vrai*, in such matters, never resembles *vraisemblable*. Should any signs of phagedæna, any ugly aspect come upon the surface of the chancre, your remedy is still there the same—make more chancres! The phagedænic look is an indication of perseverance in the same path. Stick to your inoculating lancet with a Sangrado-grasp, and you will soon extinguish these intercurrent maladies.

Again, the *à priori* philosophers might object to the circumstance, that the individual must bear upon his person for the rest of his life a very unpleasantly-figured condition of the skin. Four hundred cicatrices on the abdomen and thighs, they might suggest, would not be either pleasant or (under the consideration of their origin) respectable and honorable scars to bear upon one's body; "*Porter le cachet du syphilis sur les épaules*," is not what folks would like in this country, at all events. In answer to this objection, however we have the satisfaction of finding, that the ulcerations leave very insignificant reminiscences of the past upon the surfaces where syphilization was practiced. All is made pleasant here.

What are we to say to all this? Ordinary pathological principles—if there be such things—are evidently abrogated for the nonce, to introduce the happy event of syphilization into the domain of medicine. If we are to believe all that has been, and to appearance honestly, told us about this curative agent, we have assuredly a strange mass of novel facts to ponder over. Syphilization imparts to the human body, immunity from syphilitic infection—it removes existing syphilitic diseases—primary, secondary, and tertiary—and it does not injure, but rather improves the health of the person subjected to the process. Men of note in Italy and in northern Europe have experimented largely in the matter, and these are their deliberate assertions.

The Frenchman has not experimented, but he totally repudiates these conclusions theoretically. In England we have neither repudiated nor experimented, but have hitherto treated the subject with a calm indifference. True, we are not much given to enthusiastic impulses; and, certainly, to ask any one to give implicit credence to such rare things as these, on the evidence of a second person, in a foreign land, is to make a heavy demand on his credulity. But then, on the other hand, Drs. Boeck and Sperino have a right to point to their labors, and to ask doubters and disbelievers to repeat their experiments; and the subject is clearly one which can only be decided by an appeal to facts.

Now here the difficulty meets, if it does not beat us. Before a man commences an operation of this magnitude and duration, he must satisfy his conscience that "*le jeu vaut la chandelle*." It is

not surely a sufficient warrant for his thus operating, that mercury is not so satisfactory a remedy for syphilis as it was once thought to be. He must be satisfied that the good which shall result will counterbalance the certain evil which must be incurred. Most careful men will, we should imagine, have a natural shyness at undertaking experiments of the kind here spoken of; and hence we shall not very readily arrive at any practical conclusions on the subject in this country. We cannot but admire this caution; and should any one feel an itching to see for himself how the remedy works, we should advise him, before indulging in the experiment, candidly to examine himself whether, if he were in the case his patient is supposed to be, he would submit to the treatment he is thinking to inflict on another. A remedy may be worse than the disease.

Years must pass over before any certain facts can be arrived at concerning the permanent and enduring efficacy of the remedy. The investigation also is itself a very complicated one, and many of the results described may be correct without the conclusions deduced therefrom being admitted. Indurated chancres no doubt heal up under syphilization, but they heal up also when no specific treatment at all is used, when rest and proper diet are enforced. Moreover, we do not know whether the mere counterirritation produced by the formation of some hundreds of chancres, may not have some direct influence over the cure of the original disease. We have seen a most obstinate case of cutaneous syphilis, which had resisted all sorts of treatment, rapidly cured by an attack of typhous fever, which the patient caught in the hospital. That the patients do not suffer from, but improve in health under the treatment, is explicable enough when we consider the class to whom most of those who have hitherto been experimented upon belong, and the wretchedness and misery which is their lot; in hospitals these patients are comparatively in clover. What length of time, again, syphilization renders an individual free from all possibility of infection is not certain; this is a fact which only time can show, and which has yet to be shown. That female patients have courted such an operation, means simply, we suppose, that they were happy to find themselves in comfortable quarters for six months, and to know that they might in future practice their sad *métier* with impunity. We must conclude by saying, that altogether we have a very unfavorable opinion of this means of cure; and until we have some stronger proofs to the contrary than the history of the cases above referred to affords, we shall consider it as a most cruel and unjustifiable mode of treatment. We have referred thus briefly to the subject because we fancy that the operation has been lately recommended for trial here in much too light and inconsiderate a manner.

As a prophylactic agent, we need say nothing of syphilization. To subject a perfectly sane individual to the process solely to render him impermeable to the venereal virus, is a proceeding utterly repugnant to morality, and admits of no discussion.—*Medical Times and Gazette*.

Extraordinary Monomania.—Mr. Lariviere relates a case which he believes unique, which has recently come before the court of Briancon. A man, aged 27, usually believed to be of weak intellect, a great liar and dissimulator, was convicted of having torn open the abdomen of many live sheep with his teeth, and then eviscerating the animals. He killed as many as thirteen this way in four or five months, and five in the same night. No motive could be assigned for the acts, and M. Lariviere pronounced it a case of pure monomania. The court sentenced him to six months' imprisonment.—*Med. Times and Gaz.*, June 13, 1857, from *L'Union Medical.*—*Medical News and Library.*

Physicians' Bills in the Burdell Murder Case.—The bills presented to the county of New York for medical and chemical services connected with the murder of Dr. Burdell, last winter, were as follows:—Dr. J. W. S. Gouley, for microscopical examination of blood, &c., \$300. Dr. Wm. Knight, for surgical examination of the wounds, inspection of the clothing, furniture, dagger and other instruments, &c., \$350. Professors Doremus and Childs, for ten days' service in chemical and microscopical examinations, with chemical assistant, \$400.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Disease of the Skin. By ERASMUS WILSON, F. R. S. Fourth American, from the Fourth and Enlarged London Edition. Philadelphia: Blanchard & Lea. 1857, pp. 649. For sale by Riley & Co.

Through *four* editions in England, and also through *four* in this country, this work has already passed. This is an acknowledgment certainly of its merits.

The edition before us, the author states, has been made as complete as possible. Among other things, he has arranged a new system of classification, founded, as he regards it, on the only true practical basis, the *cause* of the disease. Several new chapters have also been added. A chapter on Classification; one on General Pathology of these diseases; on General Therapeutics; on Furuncular Eruptions; on Diseases of the Nails and Nail Follicles. Chapters that occupied the previous editions have been extended in

some instances. The author has also given the Syphilodermata a more important position. Appended to the volume is a collection of *selected* FORMULA—prescriptions that have been found of most value in the *treatment* of diseases of the skin.

In Dermatology, nothing is of more importance than a good classification. That which was inaugurated by Plenck (Vienna, 1776), and subsequently amplified and improved by Willan, is attractive to the student, from its easy applicability; but is regarded, by the author, as too artificial, and not calculated to convey an idea of the nature and cause of the various forms of disease and consequently affords no aid to the comprehension of their treatment. The author's *Classification* is founded upon the etiology of these diseases, and is something like that of Hippocrates, which divides diseases of the skin into *Local* and *Constitutional*.

“The great family of diseases of the skin admit of division into two primary groups, namely :

“1st. Diseases affecting the general structure ; and,

“2d. Diseases affecting the special structures of the skin.

“The disease affecting the general structure of the skin, or derma proper, are such as implicate at once all the tissues which enter into its composition.

“The diseases affecting the special structure of the skin are those which select its separate components. Such as the vessels, nerves, papilla, and pigment ; or its special organs, namely, the sudoriparous glands, sebiparous glands, hair follicles and hairs, and nail follicles and nails.”

The author has placed under the head of “*Diseases affecting the general structure of the Skin,*” seven typical forms—Erythema, Lichen, Eczema, Impetigo, Herpes, Furunculus, Purpura. Five of these, it will be observed, correspond with as many orders of the Willanean classification, namely, Exanthemata, Papulæ, Vesiculæ, Pustulæ and Bullæ.

Under the head of “*Diseases affecting the special structure of the Skin,*” he has

1. Diseases affecting the vascular structure of the skin ; example, *Hypertrophy venarum*.

2. Diseases affecting the nervous structure ; examples, Hyperæsthesia, Anæsthesia, Pruritis.

3. Diseases affecting the papillary structure ; examples, *verruca, clavus*.

4. Diseases affecting the pigmentary structure ; examples, Melanopathia, augmentation of pigment ; Alphosis, diminution of pigment ; Ephelis, alteration of pigment.

5. Diseases affecting the sudoriparous organs ; example, *Idrosis Anidrosis*.

6. Diseases of the sebiparous organs ; example, *Stearrahœa simplex*, augmentation of secretion ; Xeroderma, diminution of secretion.

7. Diseases of the hair and hair-follicles ; example, *Hirsuties*, augmented formation ; Defluvium capillorum, diminished formation ; Trichiosis ciliorum, abnormal direction.

8. Diseases of the nails and nail-follicles ; example, *Degeneratio unguium*, Onychia.

Two chapters are appropriated to descriptions of the itch Animalcule, *Acarus Scabiei*, and the *Steatozoon Folliculorum*.

Of the former, the itch animalcule, the author traces accounts to Aristotle, who seemed to know a good deal about it. It was known to the Greeks generally, and to the Arabians. Indeed, from the historical account furnished by the author, most of the nations of antiquity were acquainted with the little animal, and by them it seems to have received full credit for its performances.

The *Steatozoon* is of modern discovery. While investigating the cause of *acne*, Dr. Gustav Simon, of Berlin, discovered in the sebaceous substance, with which the hair-follicles are so completely filled on the nose and face, an animalcule, and gave it the designation, *acarus folliculorum*. The length of the animal varies from the $\frac{1}{84}$ to the $\frac{1}{134}$ of an English inch. The animal is divisible into a head, thorax, and abdomen.

The volume closes with a chapter entitled "Selected Formula"—the substances, simple and compound, which experience has found most available in the treatment of skin diseases, a class of diseases proverbial for the constancy with which they stand out against all remedies.

We close our notice of this book with the remark, that it needs no recommendation at our hands. Those who buy it, will find it very full of good matter, well arranged. The publishers, Blanchard & Lea, have made a nice thing of it, also, in the way of mechanical execution.

Medical Lexicon; A Dictionary of Medical Science, Containing a concise explanation of the various subjects and terms of Anatomy, Physiology, Pathology, Hygiene, Therapeutics, Pharmacy, Surgery, Obstetrics, Medical Jurisprudence, Dentistry, etc.; Notices of Climate and Mineral Waters; Formula for Official Empyric and Dietetic Preparations; with French and other Synonymes. By ROBLEY DUNGLISON, M. D., L. L. D., Professor of the Institutes of Medicine, etc., in Jefferson Medical College. Revised and very greatly enlarged. Philadelphia: Blanchard & Lea. 1857. (For sale by Riley & Co.)

From the *Preface* we learn that, on this edition of the *Lexicon*, the author has bestowed unusual pains. He has added about *six thousand subjects* and terms which are not to be found in former editions.

The work has been thoroughly *revised* where the progress of science required this to be done. The author's aim seems to have been to make the work satisfactory and desirable—a lexicon in which the student may search without disappointment for every term that has been accepted in the nomenclature of science.

Scarcely any one but the author himself is able to appreciate the enormous amount of labor invested in bringing this work into its present condition. It deserves a liberal reception at the hands of the profession, and the author their thanks also.

The publishers, Blanchard & Lea, have got it up in very handsome and substantial style.

A Collection of Remarkable Cases in Surgery; by PAUL F. EVE, M. D., Professor of Surgery in the Medical Department of the University of Nashville. Philadelphia: J. B. Lippincott & Co., 1857. For Sale by Riley & Co.

Harvey has said that there is no way more calculated to advance the proper practice of medicine than to give ourselves to the discovery of the usual laws of nature, by a careful investigation of the *rarer* forms of diseases. The French dictionary, under the head, *Cas Rares*, gives quite a number of uncommon cases. We have also had an attempt of the same character a few years since by Dendy, in a pamphlet entitled, "Wonders Displayed by the Human Body." Perhaps, however, nothing has made its appearance in our literature in this line, at all comparable with the work before us. It contains 823 pages, exclusive of the index. The cases are classified according to regional anatomy, and on this account are of easy reference.

A collection of rare cases, such as go to make up this portly volume, must certainly be regarded as a kind of contribution;—for, published, as the cases have been, in the periodicals of both continents, they were, in a measure, inaccessible to the generality of readers. Dr. Eve, therefore, although living in an age characterized by a mania for book making, has given no evidence, as we regard it, in the effort before us, as having suffered from the prevailing trouble; measured indeed by the *utilitarian* rule, saying nothing about the stir that it will make among those who have a taste for the marvelous, the work takes a very respectable rank. While the great majority of the cases recorded by the author would not be likely to be repeated in any one's practice, however prolonged or extensive, there are some that occur with comparatively more frequency. Then again, what information more valuable than that which teaches the powers of the *vis medicatrix naturæ* under apparently the most desperate circumstances. To the reader, the work will certainly suggest a practical lesson; that is, not to be easily discouraged in the treatment of the most terrible surgical cases. The work commences with Injuries of the Head.

Case VIII.—“The breech-pin of a gun remaining imbedded in the ethmoid and sphenoid bones for eight years.”

Case XXI.—“An iron bar (tamping) shot through the head—patient recovered.”

Instances are given of the Cæsarean section having been performed three and four times successfully on the same patient. Also, of the successful extirpation of the uterus; of the reunion of fingers and toes after complete separation; of extensive gun-shot wounds of the heart without producing immediate death.

The most lengthy chapter of the volume is occupied with “Miscellaneous Cases.” Here the reader will find much that will interest and instruct. The novel process adopted in many instances to remedy the results of casualties make an important feature of the work. The volume closes with a section on Surgical Anecdotes.

It is unnecessary to commend this volume to those who are fond of queer things in surgical science. Such will possess themselves of it at once. But it may be necessary to say a word or two to those of different constitution. The work has been got up with care. The compilation of it, indeed, has involved no small amount of labor. It brings, within a comparatively small compass, information

that has heretofore been scattered through periodical, monographs and rare publications. This information, as remarked in a previous connection, is not only not without its use, but can have no other effect than that of enlarging the mind with reference both to the powers of Nature and the resources of professional skill. Nature, it will be seen, endures or overcomes the most remarkable of disasters, while the inventive genius of the surgeon, without map or chart, strikes out modes of procedure to meet emergencies never thought of before.

Among the Miscellaneous Cases, we notice one by Prof. Samuel D. Gross, M. D. The case is denominated an "*Attempt to Convert a Boy into a Girl.*" Following the account of the case, we have the "Comments of Prof Bowling." The case is truly a novel one, and deserved a place in a book styled a "Collection of Rare Cases." Perhaps it was for *their novelty*, also, that the comments of Prof. B. were appended. Gross' case was a terrible freak of nature; Bowling's comments a freak in logic. The former was no more worthy of a place in a "*Book of Curiosities,*" than the latter.

The case was one of monstrosity of the genital organs, usually denominated hermaphrodism. The child was two years of age; and having exhibited some tendency to boyish sports, the advice of Prof. Gross was, by its parents, obtained. On making an examination, the *genitals* were found in the following condition: "There was neither a *penis* nor a *vagini*, but instead of the former there was a small *clitoris*, and instead of the latter, a *cul-de-sac*, covered with *mucous membrane*. The urethra occupied the usual situation; the *nympe* were unnaturally small; the labia were well developed and contained each a *testés*, quite as large, consistent and firm as they usually are in boys of this age."

Castration was performed by Prof. Gross in this case for, among others, the following reasons:

1. The certainty of the developement of sexual desires at the age of puberty; and, as a consequence of this,
2. The probability of the formation of an unfortunate matrimonial connection.
3. That such a connection could but result in disappointment, mortification, and perhaps disgrace.
4. No impregnation could ever occur, and even copulation could be performed imperfectly.

To almost any one, such reasons, we should think, ought to be conclusive. With a pair of testicles, this *lusus naturæ* at the age of puberty, would not only have been, to all intents and purposes, a poor miserable eunuch, but an eunuch enraged and tormented with a desire that could not be gratified. The operation, as asserted by the "Commentator," did not make an eunuch out of the child. Nature had denied it a penis; it had not the organ without which all the testicles in the world would have failed to have been of any force. The operation merely removed from the child that which would have proved to it a source of great disappointment and mortification.

The taste of Dr. Gross, in short, was to have all the genital apparatus necessary for complete work, or none; that of the "Commentator" on this operation was to have the subject grow up to puberty possessed of sexual instinct, but only capable of "*false motions*."

Transactions of the Twelfth Annual Meeting of the Ohio State Medical Society, held in the City of Sandusky, June, 1857. Printed by H. D. COOKE & Co.

These transactions make a volume of some 220 pages, which shows at least, that the Society is alive and in vigorous action. We are sorry to see so many typographical errors in the various reports of committees and essays. They are always a great source of mortification to the respective authors, and very much mar the beauty, particularly of a scientific production. This difficulty might have been avoided by giving the publication to some publisher of a medical journal, who would have been individually responsible for all errors of this kind. The binding is very neatly executed.

We were not present at the meeting of the Society, but the daily transactions show that the meeting was pleasant and harmonious.

The welcome address of Dr. Tilden is very appropriate to the occasion. It is chaste and beautiful, and with its touching reminiscences and historical portions, makes it a valuable paper for preservation. Nor is the valedictory address of the venerable Dr. Peter Allen, less interesting or appropriate. We hope our aged brother may yet long be spared to the profession which he has so highly adorned, and to the community in which he has spent so long and

useful a life, and whose endearments are rendered strong by a thousand acts of kindness, and whose every inch of soil has been tread by him in his errands to aid the sick and relieve the suffering.

The great body of the volume is made up of the reports of committees, and essays on various medical topics; and these papers and reports are what give the greatest value to the published transactions, and interest to the society. We have not room, nor is it expected in a mere notice of this kind, to review each paper at length—but we feel constrained to refer briefly to a few of them. The report of the committee on Obstetrics, by J. G. F. Holston, M. D., Chairman, is particularly interesting. It is a paper of considerable length, and is gotten up with great care, and contains much that is of practical value to the obstetrician, and interesting to the student of medical literature. It opens with a chapter on the history of midwifery, as practiced in this country, commencing with the Aborigines, and following it through its various progressive stages to the present time.

Another chapter is devoted to the theory and practice of the art—with a section of statistics of natural and preter-natural labor—and also a section on diseases of puerperal women. The last chapter is devoted to general obstetrical literature and education. There are also several appendixes, containing reports of special cases of interest—and statistical tables, furnished the committee by sundry medical gentlemen, who responded to the call of the committee for such reports. Taking the whole paper, we look upon it as one of the best reports we have seen on that subject, and one that will adorn the archives of the Society.

Dr. Holston also gives an additional report on microscopes and microscopy, which is interesting, and especially to those interested in that department of our science.

The report of the committee on Surgery, by John Dawson, M. D., Chairman, is extended and replete with interesting and valuable matter. It gives evidence of extensive research, and deep thought, and is worthy of an extended notice—but, did the room allotted to us permit, the intimate relation in which we stand to Prof. Dawson, and the great modesty of the worthy man, would refrain us from saying much of the paper.

The writer commences by saying “The department is so extensive, and all the subjects of which it is composed being of nearly equal interest, it has seemed almost like invidiousness to attempt to

make a choice. He has, however, wisely selected as the subject of the report, "A review of the present doctrines, and what is regarded as present knowledge in surgical science ;" and for this purpose has arranged the general subject under the four following heads: 1. The age of scientific surgery. 2. The mechanical or operative department of surgery. 3. The scientific, or pathological department. 4. What per centum of success justifies a surgical operation. The whole report is gotten up with much care and taste, but with the great aim to make it useful and instructive.

There are numerous other reports and essays, each of which is interesting and valuable. But we have not room to notice them all. We cannot however refrain from inviting the special attention of the readers of medical literature to the paper of Dr. R. R. McMeens, on the topography, mortuary statistics, endemic and epidemic diseases of Sandusky, Ohio; and the report of the committee on Medical Literature, by J. W. Scott, M. D., Chairman; and also the paper on Moral Insanity, by Edward Mead, M. D.

The book is well worth the annual society tax, and we hope the day is not far distant when every member of the profession will be an active member of the Society, and each contribute his mite to the common stock of medical literature.

R. N. B.

The Effects of Climate on Tubercular Disease. By EDWIN LEE, M. R., C. S., London. Being the Dissertation to which the Fiske Fund Prize was awarded, June 6th, 1855.

The Influence of Pregnancy on the Development of Tubercles. By EDWARD WARREN, M. D., of Edenton, N. C. Being the Dissertation to which the Fiske Fund Prize was awarded, June 4th, 1856. Philadelphia: Blanchard & Lea. 1857.

Those conversant with the progress of things medical, will call to mind that Dr. Caleb Fiske, who was President of the Rhode Island Medical Society in 1823 and 1824, at his death bequeathed to that Society a fund of *two thousand dollars*, directing the annual income to be expended in premiums for Essays on subjects selected for competition.

The Essays before us are those to which the prizes of 1855-6 were awarded. Connected by the topics discussed, the trustees, in view of the great amount of useful matter brought forward on one of the most important diseases, felt desirous of presenting the papers

in somewhat of a permanent form. Accordingly, they have reprinted them in their present shape, from the *American Journal of Medical Science*, in which they originally appeared.

The paper by Dr. Lee occupies 73 pages; that by Dr. Warren, 42.

We have looked through both of these papers, and regard them as presenting what is known, on the subjects to which they relate, in very clever style.

Dr. Lee's effort to show the "*Effects of Climate on Tuberculous Disease*," although by no means elaborate, contains much that is sensible.

He holds, 1st, that tuberculous disease of the lungs is curable in an indefinite proportion of cases. Post mortems have revealed in numerous instances, cicatrices in the lungs, which are regarded as traces of the former existence of tubercular excavations. Laennec also made this observation. Since his time it has been made by Ferrus and Cruveilhier, at hospitals Bicêtre, Salpêtrière. Recently, M. Beau stated that 157 out of 160 women, who died at Salpêtrière, had cicatrices in one or both lungs, which he considered to be the remains of tubercular disease.

2. Tubercle, the author thinks, is a disease of the general system, the blood being impoverished in its corpuscles, together with an alteration of its composition.

3. Pulmonary disease is most frequent in countries where a *humid* state of the atmosphere predominates.

4. The disease is of comparative rare occurrence in *cold and dry* climates; or in warm *dry* climates.

Inattention to hygienic rules, in any variety of climate, may give rise to a tubercular cachexy.

6. The chief indications in the treatment of tubercle by climate are, 1, to remedy the morbid condition of the blood; 2, to allay local irritation.

7. Change of air, and a residence in warm countries during the winter, should be recommended as soon as the cachexy makes its appearance.

8. Localities which combine a suitable climate with resources for mental occupation and diversion, by which patients may be inclined to spend a large portion of the time in the open air, are best suited for winter residences.

9. Prolonged residence in an equable calm atmosphere is not as beneficial as where there is a moderate agitation of the atmosphere.

10. Warm and dry localities best suit persons of a *lymphatic* temperament or scrofulous constitution ; while on the other hand, persons with a *sanguinary* or nervous temperament, with irritability of the air passages and a disposition to hæmoptysis, are most apt to be benefitted by a somewhat moist atmosphere, not liable to great transitions.

11. Northern patients, with sanguinary temperaments and irritable lungs, although at first benefitted by a warm, moist climate are apt to experience, if they reside too long in it, sensations of general lassitude which render them liable to an aggravation of the disease.

12. Climatic influences exercise one of two effects—*stimulation* *sedation*.

The dry exciting atmosphere of one locality is adapted to a certain class of cases ; the moist and equable to another.

The foregoing are the conclusions of the author condensed within perhaps too small a compass for perspicuity. They are, in the general, such as have been approved by those who have turned their attention to the inquiry. No nonsense is more egregious than that of recommending patients indiscriminately to the same climate, merely because it is warm, equable, moist, etc. A patient of lymphatic temperament and sluggish circulation of the blood, would not only not be likely, under such circumstances, to receive any benefit ; but, on the contrary, would be likely to be injured.

The *Appendix* contains notices of some of the places most frequented on account of their climates, in the South of France, of Italy, etc. Among these we notice, Pau, Hyères, Nice, Menton, Pisa, Rome, Naples, Palermo, Malta. The author comments upon the climatic peculiarities of each one of these localities, and suggests the class of cases to which they are severally adapted.

The Essay, by Dr. Warren, "*The influence of Pregnancy on the Development of Tubercle*," occupies 42 pages of the volume and is written with more than ordinary ability. The author has posted up the literature pertaining to his subject with some care. We see nothing, however, new in what is brought forward. The observation, that pregnancy suspends the progress of tuberculous deposits, is coeval with the origin of medical science ; and there is scarcely a writer of ancient or modern times who has not borne his testimony to its truth.

In conclusion, the author says : " I have thus attempted by arguments, facts, and authorities, to prove that pregnancy prevents the progress of phthisis, even when that disease is perfectly developed. Whether this effort has been successful or not must be left to the judgment of my readers, and to them I confide my cause with the full assurance, not only that their decision will be equitable in regard to all that has been urged in support of my position ; but that they will agree with me in the conclusion that if pregnancy can arrest the progress of consumption when fully established, then for a still *stronger reason* must it retard the development of tubercles in those predisposed to phthisis.

NEW BOOKS.—The following new books have been received and will be reviewed in our next No :

West's Lectures on Diseases of Women. Publishers, Blanchard & Lea. 1857.

Miller's Practice of Surgery, 4th American Edition. Publishers, Blanchard & Lea. 1857.

Peaslee's Human Histology, a new work. Publishers, Blanchard & Lea. 1857.

Meigs on Diseases of Children. Publishers, Lindsay & Blakiston, 1857.

Cazeaux's Midwifery. Publishers ; Lindsay & Blakiston. 1857.

Dunghisan's Therapeutics. Publishers, Blanchard & Lea. 1857

The above works are for sale in this city.

Monographs—

J. Aitken Meig's, *Cranioscopy.*

Brown Sequard, on Epilepsy.

Horace Green, on Lesions of Epiglottic Cartilage.

—, On the introduction of the Probang.

D. Meredith Rees, on Infant Mortality.

PART FOURTH.

EDITORIAL AND MISCELLANY.

CONGRESSIONAL DOCUMENTS.—From Hon. Samuel Galloway, our former member of Congress, we have received,

The Patent Office Report, 1856 ; Smithsonian Report, 1856 ; Army Meteorological Register, and Medical Statistics, U. S. Army.

We have looked through these books to see if they contained any thing calculated to interest our readers, who are reputed as belonging to a class proverbial in all ages of the world for their taste ; and for their attainments in a knowledge of the most substantial truths connected with civilized life.

We infer, from the Patent Office Report, that we are by no means behind other nations in the cultivation of mechanics, and in inventive genius. The number of patents issued during the year 1856, by the office at Washington, exceed those granted by the English or French. Besides the number with us appears to be on the increase, 478 more patents granted in 1856 than in 1855.

We examined the Report for the purpose, among other things, of seeing what was done in the way of patenting *Medical and Surgical Instruments*. During the year it appears that 20 patents have been granted for instruments used in medicine and surgery, and 7 pertaining to dentistry.

Among the many interesting things in the Smithsonian Report, we notice a series of investigations by Dr. Jones, relating mostly to physiology. The experiments were for the most part conducted in Liberty county, Georgia, where the author had an opportunity of obtaining fresh specimens, from time to time, of vertebrated animals, an opportunity seldom enjoyed by previous observers.

The experiments relate to the analysis of the blood, to the physical and chemical changes in the solids and fluids of animals when deprived of food and drink, to the effect of a change of diet, to observations on the alimentary canal, to the comparative anatomy of the pancreas, liver and spleen.

We have no space for the author's conclusions, nor is it necessary to mention them, for they are such as have been arrived at by other observers. The opinion advanced by Bernard in regard to the pancreas, viz:—That its office is to prepare fatty matters for absorption, is sustained. Dr. Jones got no new light on the spleen. So far, the office of this organ is not understood. We have experiments, however, enough to know that it can be dispensed with, without maiming seriously at all the other physiological processes.

As far as the observations of the author have extended, the kidneys are larger in carnivorous than in other animals. The amount of urine excreted by warm-blooded animals is from forty to several hundred times that furnished by a cold-blooded animal. The urine of fishes is difficult to be obtained, the bladders are almost always empty.

Whatever estimate may be formed of the speculations of the author, there can be but one opinion as to the value of his facts, and as to the value of all such labors. A truth discovered, may not seem at first view to be of any very great importance. Still it may be the entering wedge to some problem that has resisted all other attempts at solution.

"Every well established truth is an addition to the sum of human power, and although it may not find an immediate application to the economy of every day life, we may confidently commit it to the stream of time, in the confident anticipation that the world will not fail to realize its benefits."

In the report of the *Secretary* we notice that a sarcophagus, bearing a long Phœnician inscription, having been exhumed in the vicinity of ancient Sidon, in the year 1855, the American missionaries took copies of the writing, and American scholars are now engaged in making a translation.

Permanently inaugurated as is now this institution, it may be confidently expected that it will do much towards elucidating the physical sciences of our continent, the geography, geology, hydrography, botany, zoology, meteorology, etc.

Courses of lectures on scientific subjects, are given through the winter, with occasionally a lecture on some popular subject. Political and sectarian doctrines are excluded.

Medical Statistics of the United States Army.—These statistics embrace a period of sixteen years, from 1839 to 1855, and have been prepared by Richard Coolidge, M. D., assistant-

surgeon United States Army, under the direction of Brevet Brigadier General Thomas Lawson, surgeon-general U. S. army, and may be regarded as a continuation of the one prepared by assistant-surgeon Samuel Forrey, and published in 1840.

This report details, in tabular form, the sickness and mortality of the United States army in the different positions it has occupied, from the Atlantic to the Pacific, and from our possessions on the north to New Mexico and Florida. Besides, it gives some account of the topography, hydrology, geology, flora and fauna of the different regions, and some account of the Indian tribes.

The army of the United States, it seems, by this report, amounts to 12,698.

Until we saw this report we had supposed that we were a peaceable people, and that our army was only kept up to frighten off invaders, fillibusters etc. But, the report says that during the last 16 years the army has had but three years exemption from field operations and actual hostilities. The war with the Seminoles in Florida lasted up to '42. In '46 war was declared with Mexico, from which country the army was not withdrawn until '48. Since the last date, the army has been continually employed on the frontier, a large part of it employed almost continually in hostilities. Truly such facts give us the aspect of a *war-loving* people. Nor does the future, so far as we can penetrate it, contain any thing more favorable. The report of the Indian Bureau states, that at the present time there are between three and four hundred thousand Indians in the territory claimed by the United States. These, like the Canaanites, must give place to a superior race. Abraham and Moses and Joshua, laid their plans for the extermination of the children of Ham; we have ours for the extermination of the Red men of America.

Judging by the length of time it has taken to exterminate the Indians of Florida, it will be seen that we have quite an ample amount of material, in the 350,000 Indians within our borders, to keep up, for some time, the interest we take in the destruction of an inferior race. Our kind of civilization, as far as is yet known, suits better than any other the queer compound of humanity that goes under the name of Anglo-Saxon. But it does not seem, after all the experiments that have been made, to be adapted to the autochthons of America. Wherever our notions and habits touch the Red man, he disintegrates. Of our virtues he seems incapable; but of our vices he absorbs too freely. A few years since, a meeting of a

missionary society, for the conversion of the Indian, was held on the frontiers by one of the religious denominations. A few of the Indians participated, heard all that was said in regard to their proposed civilization and conversion to Christianity. The Chiefs were invited to speak, and give their views in regard to the practicability of the plans submitted. One of them responded in substance as follows : " Christians, your religion may be very well suited to the white race. I have no doubt that it is, but it is not adapted to the Indian. He likes to worship the sun, moon and stars. It has always been so with him, and it always will be so. Localize him, and compel him to adopt the customs and religion of the white man, and he dies out, but allow him to roam from place to place in hunting and fishing and he will live."

These Red men have never risen to any position in the cultivation of the Arts. Like the Turks and Celts, they have a talent for decorative designs. Their bead-work and embroidery, which shows some ingenuity and some perception of the harmony of colors, is sufficiently known. They have always been warlike. They took the continent from a superior race artistically, the *Moun-builders*, have enjoyed it, no one can tell how long, and now the fates have decreed that their time has come for extinction. We might ask the question just here, when will *our* time come, and what nation is being raised up for our overthrow. We have no cities yet like Babylon, Nineveh or Petra ; no temples like that of Solomon, which is said to have been ornamented with 48,000 tons of gold ; no pyramids like the Cheops ; and yet, where are the races who were connected with these works ? Can it be possible that we too are to be partakers of the same fortune that has fallen to the lot of our predecessors, and that the time will come when antiquarians will have to exhume our cities and dig among their ruins in order to tell who we were, and of what kind of civilization we were the subjects ?

It should not be supposed that this Report can give anything like a correct account of the diseases peculiar to the different localities occupied by the American Army. It may, and very properly no doubt does, show the dynamical condition of the army in the different regions it has occupied—what effects the rapid transition from place to place, involving change of climate and change of other circumstances, have had upon the health of the soldier. The war with Mexico developed the fact that the chances of dying from dis-

ease contracted in that climate, was much greater than the chances of dying upon the field of battle.

That part of the Report which relates to the ethnology of the Indian tribes and the diseases to which they are liable, is full of interest, and when looked into will reverse opinions that have been long entertained.

As we have possessed ourselves lately of a portion of territory in New Mexico, we turned over the leaves of the Report to see what was said of the inhabitants thereof. We condense from it the following :

The New Mexican is almost invariably a mestizo, of medium hight, and has the low retreating forehead, high cheek bones, and oblique eyes of the surrounding Indian tribes. His stature is below the medium hight ; temperament nervous ; mind without a spark of culture, except to pander to the cupidity of priests.

The females are generally homely, yet at times strikingly beautiful. They are better developed than the males. They are cheerful, have a strong idea of beauty, a consuming emotion of love, though it is not constant ; of sympathy which never grows less. * * *
* * But of sexual virtue, their moral education destroys every idea suggested to them by nature. The business of their lives is constituted by their domestic duties, and the rigid espionage under which they live, and the want of consciousness of doing wrong, impel them with the highest zest for intrigue.

They marry as early as eleven, and generally between that and fourteen. The males as early as the sixteenth.

They are a pastoral people, do not make fences, but trust their cattle to herders. They have little or no rain clouds, and as a consequence, irrigate their lands by canals from the river. Barely enough is planted to subsist upon, in order to get more time for idleness. "*The fatal bait of temporary ease and quiet,*" is suspended before the imaginations of all.

The diseases which prevail among the New Mexicans, are syphilis, scrofula, diarrhoea, dysentery, rheumatism, intermittent fever, pleurisy, pneumonia, and occasionally typhoid fever. Small-pox has visited them occasionally, and in 1850 they suffered some from erysipelas.

The materia medica comprises but few articles ; and the character of a physician is entirely unknown to them.

The Army Meteorological Register.—Previous to 1818 we possessed

no records of Meteorological observations. In that year the Hon. J. C. Calhoun, then Secretary of War, created the office of Surgeon General of the Army. Among other duties, the Surgeon General was required "to keep a diary of the weather and note everything of importance relating to the medical topography of his station; the climate, diseases prevalent in the vicinity, etc." The work before us is a part of the fruit of this regulation. It embraces a period of twelve years, from 1843 to 1854, inclusive.

The Surgeon General, in 1840, applied to Congress for an appropriation to enable him to extend the system and render it more complete. The extended system went into operation in '43. It embraced four observations daily on the barometer, thermometer, clearness of the sky, direction and force of the wind, the direction and velocity of the clouds. To these were added two daily observations on the wet bulb thermometer, and the measurement of rain and snow.

Observations have now been made at *fifty-one* stations, from the Atlantic to the Pacific coast, and from the 47th parallel of north latitude to the banks of the Rio Grande. The observations are consolidated at the end of the volume into *monthly* and *annual* summaries. These tables may be regarded as a digest of all the observations made since 1822, and of all measurement of rain and snow since the introduction of the rain-gauge in 1836. The work is illustrated by *charts* of distribution of temperature and of rain.

Although it may greatly subserve the purposes of general science, and no doubt will, this system of meteorological observations is primarily connected with the cultivation of medicine. It is designed to unfold the character of our climate, the relations of atmospheric phenomena to disease; and, as a consequence, to the etiologist it must be of paramount importance. It is in inquiries of this character that views in regard to human maladies get depth and breadth.

We have no space just now for a further notice of these "*Congressional Documents*." At some future time we intend to look through the "*Medical Statistics*" for the purpose of collecting together the observations on diseases, etc., of the Indian tribes. The army was made up mostly of foreigners, (foreigners constituted about 70 per cent. of the army,) who of course, to some extent had to go through the process of acclimation at many of the stations where quartered, a circumstance that would render it

very improbable that they would indicate exactly the character of the diseases peculiar to each station. The diseases of the natives, therefore, taken in connection with those suffered by the army will assist very materially in throwing light on the question of salubrity.

The Past Year.

A very useful and time-honored practice is that of retrospecting the past. It is useful because it brings before the mind what has been said and done, with the consequences that have resulted, and that are likely to result. Individual is not more likely to be benefited by such an operation than professional character.

The profession of Medicine, during the past year, has underwent no very marked changes in any respect. Things have moved along about as usual, from causes and tendencies that for some time have been in operation.

Conscious that the "Healing Art" can only be improved by cultivating a more thorough acquaintance with the physical sciences, good men, all over the world, have been busily engaged in beseeching Nature to give up her secrets. To our knowledge of the grosser forms of organized matter, but little for years has been added. Descriptive Anatomy is about the same now that it was in the days of Wistar, Bichat, and Jno. Hunter. Far different, however, is the case with Histology. The microscope and the crucible have, within a very few years, added largely to our knowledge of the physical and chemical constitutions of all the organs and tissues of the body. From his existence in the form of a cell, until time has completed his general disintegration, man, in all the metamorphoses he undergoes, has been inspected. Then, again, the chemist has taken him apart, compound by compound, and atom by atom, until his composition, normal and as impressed and altered by the influences of disease, are in progress of being understood. In the line of these inquiries it gives us great pleasure to notice the new work of our countryman, Dr. Peaslee, of New York, on *Histology*, the first American work of the kind yet published. This work shows the presence among us of a growing taste for the severer processes of research, and the higher departments of science. At present it appears that it is in the direction of such inquiries that we are to look for most that will enrich Medicine.

The department of Practical Medicine has, during the past year, received a considerable portion of attention. Several new works, and monographs in quite an abundance, have made their appearance. The tendency is, to greater accuracy in diagnosis and in the use of drugs. For a long time the phenomena of disease have been regarded as an order of things that ought to be investigated by themselves without any reference to the standard of health. As the profession have become enlightened, the tendency has become decided to regard physiology as the stand-point from which to calculate all morbid processes.

The late work of Sir John Forbes, *Nature and Art in the Cure of Disease*, was, to our surprise, rather favorably noticed in the *British and Foreign Medico-Chirurgical Review*. Sir John has not contributed to practical medicine, as far as we have noticed, a single truth. His theory, of *non-interference* in morbid processes, is an old humbug revamped, and, if believed and acted on, would effeminate and render nugatory the practice of medicine. We need no more theorizing in this line. We know enough of the power of drugs to know that they are capable of *subverting* morbid processes, of "*stopping*" disease. A healthy caution in the use of drugs is proper and right; but caution may amount to cowardice, and this is about the kind Sir John's writings of late are calculated to inspire.

The contributions during the past year to the archives of the *American Medical Association* have not been as large as in former years. The volume however contains several very valuable papers. Among these, the paper of Prof. Hamilton, of Buffalo, New York, "On Deformities after Fractures," may be mentioned, and may be regarded as a contribution to surgical science. Impressed with the value of this paper, we have republished a part of it in the present number of the Journal, to the exclusion of "Original Communications." The other papers in the volume we will notice formally in our next issue.

We have perhaps said enough for a mere passing notice, in regard to the aspect of things medical. There are some other matters that should perhaps receive a little attention.

So far as our observations have extended, the "irregular" systems of practice seem to be on the wane. Public credulity has been taxed and taxed with one humbug after another, until it is about to revolt. Its cup is about full. "New Systems" are now being

looked upon with more suspicion, and we would fain hope that we had seen the last of them. The getting up and selling of nostrums have been, however, of late, systemized. The success of a nostrum is no longer a matter of doubt, or to be guessed at. Swindlers in the sale of drugs now bring to their aid a knowledge of all the vulnerable points of humanity, and calculate the per centage of gullability of different neighborhoods with as much accuracy as a life insurance company does the proportion of a population that will be likely to die annually.

In conclusion, we bid the old year good-bye. What of it has been disagreeable or unprofitable we will try to forget; what useful and pleasant, we will cultivate as a source of future enjoyment. To the readers of the Journal we say "*A happy New Year.*"

Consumption in Charleston, South Carolina.

We accidentally got our attention turned to the Annual Report of the City Register, by John L. Dawson, M. D., for Charleston, South Carolina, from which we glean the following facts:

Proportion of deaths to the population is 1 in 34.94. Whole number of deaths, in 1856, (whites and blacks) 1,428. Of consumption there died during the year 1855, more than the one-ninth of the whole number. The proportion of the negroes, we see by the tables, that died of consumption, is greater than that of the whites. It is unnecessary to observe that Charleston is in latitude 33°. The prevailing winds are from the E. and S. E. The mean day temperature of the months December, January, and February, was 50 degrees. From such data, consumption seems to be about as rife at the south as anywhere else.

We have before us a circular, from N. D. Benedict, in which attention is called to MAGNOLIA, East Florida, as a Winter Retreat for Invalids. Magnolia is on the St. John's river, in about the same latitude with and about 20 miles west of St. Augustine. The mean annual temperature of this part of Florida is about 70 degrees; winter temperature 56 degrees. The atmosphere generally clear, dry, and free from fog. The "Magnolia House" is said to be amply provided with every convenience calculated to make visitors comfortable.

Comfort.—The following is an extract of a letter, received from a highly intelligent physician of one of the largest cities in the Mississippi valley :

“ *Respected Friend :* * * * * *

“I take six Medical Journals, and consider yours the best among hem, and the British and Foreign Medico Chirurgical Review the next. I hope Doctor you may continue to concentrate your best medical ideas in it, and let its light continue to shine upon the profession with that mildness, when touching upon the subjects of ethics so characteristic of a well disciplined mind.”

School of Medicine at Algiers.

The London Lancet contains an account of a decree dated Aug. 4th, of the present year, for a School of Medicine and Pharmacy, at Algiers. As far as examinations are concerned, the school will be in connection with the Faculty at Montpellier. The diploma^s granted in Africa will entitle to practice in the French possessions in any part of the world. It was in Africa, at the Alexandrian school, that public prejudice first gave way and permitted the examination of dead bodies, the greatest boon to the medical profession, inasmuch as it removed the most serious obstacle to its advancement—ignorance of anatomy. Herophilus and Erasistratus were the heads of the Egyptian school, and were the first who were permitted to practice human dissections. These pioneers not only corrected numerous errors, but made many important discoveries. Many of the names given to parts by Herophilus and Erasistratus, still remains in use. Having acquainted themselves with structure, they became bold in their surgical operations. The latter made incisions down to the liver and spleen, and applied medicines directly to these organs.

Death of George R. Gliddon.

We see it announced, in several of our exchanges, that Mr. Gliddon died at Panama, on the 16th of November last. He had been on a visit to Honduras, as an agent of a Railway company, and was returning to the United States when struck down by death. Mr. Gliddon has distinguished himself as an antiquarian. He resided in

Egypt some twenty-three years as United States Consul. It was there that he commenced those inquiries that have given him so much notoriety throughout America and Europe.

The works with which his name stands most prominently connected, are "*Chapters on Early Egyptian History, and other subjects connected with Hieroglyphical Literature*," "*Types of Mankind*," and "*Indigenous Races of the Earth*." Although not the author of all that is contained in these works, except the first named, the getting of them up has seemed to be mostly due to the energy of Mr. Gliddon. The leading matter of inquiry in all of them is, Anthropology; and among the departments of the inquiry which have taken most prominence, is the one relating to the origin of mankind. In regard to this, the author and his collaborators support the doctrine of "*Natural provinces*"—the doctrine that climates take precedence in the order of creation, and that mankind and all other animals, as well as vegetables, were created to suit them. This theory involves a *plurality* of origin for man, a doctrine that has met with much opposition. "Every argument," says Mr. Gliddon, "hitherto brought forward on the *unity* side is either refuted or refutable."

The writings of Mr. Gliddon show great learning and research, perhaps more general research than any who have labored in the same line of inquiries. His elaborations, however, are interspersed with so much that is polemical, and his general bearing so defiant, that it is supposed, by some, that he has weakened his cause, by his manner of presenting it.

The truth is, his writings are subversive of our interpretations of the Mosaic account of Creation. Interpretations of scripture have frequently been changed in order to be accommodated to the truths of science; and as long as the *white* race preserves its analytical tendencies, there will be a disposition to continue the practice to a reasonable extent. When, however, an interpretation amounts to an abandonment of the doctrine regarded as indispensable to the integrity of the religious system, it is not reasonable to expect that it will readily be accepted.

Mr. Gliddon and others who have been engaged in Egyptian antiquities, in deciphering hieroglyphics, etc., state that there has nothing yet been discovered on the monuments to indicate that the *Children of Israel* were ever sojourners in Egypt. Sacred history makes the period of their residence there about 500 years; and their number, when led out of the country by Moses, across the

red sea, about 2,000,000—a number nearly equal to the present population of Ohio, and not far from the entire population of Egypt proper at the present day.

The opinion has long been entertained that the ancient Egyptians were of African origin, came down the Nile from Ethiopia, and were consequently black. Mr. G. thinks differently—so does Wilkinson, Blumenback, Cuvier and the learned hierologist, Birch. The question, however, has permanently been put to rest by the *Crania Egyptiaca*. The skulls of the mummies present the *Caucasian* type.

Among those disposed to speak of the superior character of our kind of civilization, there has been a great tendency to lay stress on the high position we award to *females*, and to claim this as a peculiarity. Mr. G. says that we have the most positive monumental evidence in a series of monuments coeval with ancient Egyptian events for 2,500 years, to prove that the female sex was honored, civilized, educated, and as free as among ourselves—that females were admitted to a full participation in all legitimate privileges with man—that women were queens and princesses in their own right—royal priestesses from birth. He adds: “Even among the Hebrews, the Jewish women were never placed in relation to man in the same high position as their more happy and privileged sisters enjoyed in Egypt.” This taken in connection with the monuments of the country, its hieroglyphical literature, etc., must be conclusive evidence of a very high order of civilization among the ancient Egyptians.

Mr. Gliddon's works are now before the public; and sooner or later their influence upon his countrymen, for whom they were prepared, we may safely suppose, will be in proportion to the truths they contain. *Nous verrons.*

Physician's Visiting List for 1858.

The publishers, Lindsay & Blakiston, have sent us a copy of the above little volume. The “contents” embrace an almanac, table of signs, poisons and their antidotes, table for calculating the period of utero gestation, blank leaves for visiting list, etc., etc. Those who use the Visiting List find it very convenient—a labor-saving machine. For sale by Randal & Aston.

CAN'T SEE THROUGH IT.—We have been often surprised at the number and character of the persons deceived and swindled by the various medical humbugs of the day. The number, however, ought not astonish so much as the character. The masses, the herd, the uneducated, always have been and always will be willing dupes of every kind of imposition. But is it not strange that with all the lights of the nineteenth century, a considerable proportion of the Clergymen, Lawyers and Governors of the country, should be unable to see through the schemes that have been fixed up by impostors in medicine to entrap them. One after another they walk up, like lambs to the slaughter, and appear to die, “in the triumphs of faith.” Cato was not more infatuated when he invoked the powers of incantation in the cure of fractures, than are many of our educated men now in dogmas and doctrines that have no other foundation than the cupidity and presumption of their authors.

Medicine is now simply a collection of physical sciences. Unless acquainted with these sciences, no one possesses any *art* in the application of drugs to the cure of disease. Ninety-nine in one hundred, of all discoveries in medicine, are made by physicists—those engaged in cultivating the natural sciences—and it is nothing short of a mark of great ignorance, or of intellectual deformity, to see persons looking to any other source than the medical faculty for aid in sickness. If it can't be obtained here, it is superstition, it is insanity to expect it from any other source. Is it then not strange, that men of education and position are so long about getting the scales removed from their eyes?

S. S. & WM. WOOD'S CATALOGUE.—We have had sent to us the Catalogue of the above firm, in New York. Among other things we notice for sale the London Lancet, London Medical Gazette, and the Sydenham Society Publications. These valuable publications, in complete sets, can now be obtained. An opportunity of this kind does not often present itself on this side of the “big ferry.” Our State Library is very deficient, comparatively, in medical books, and we know of no better investment of the funds annually at the disposal of the Librarian, than in these publications and others of similar character. The Legal department in the State Library is rich, and we see no reason why the Medical should be so poor.

DR. MCCLINTOCK—THE JOURNALS. — Our readers are aware that some time since, Dr. Jas. McClintock, of Philadelphia, who had formerly held a very respectable position in the profession, having been professor for a while in one of the Philadelphia schools, sold himself to some medicine mongers for a time, for which he received \$5,000.

After a time, Dr. McClintock became satisfied that he had sinned. He repented, and published in the Philadelphia *Medical Journal* an account of the nostrums that had been got up under his direction. Subsequently to this, a vacancy in the office of Chief Resident Physician at the Blockley Hospital occurred, and Dr. McClintock was appointed to the place. At this pretty much all the editors of the medical journals and the various medical societies took exceptions.

The N. A. Medico-Chirurgical Review, and the American Journal of Medical Sciences, are eloquent in their denunciation of the Board that appointed Dr. McClintock to the place.

What now are the points in this case, and what is the rule of action with reference to such offences?

Dr. McC. sinned—disgraced himself and family, if you please. But he has *repented* of his sins, and published to the world the evidence thereof. Yet, notwithstanding this, the journals are still down on him. They are for proscribing him forever from the profession; for not taking his repentance in any way into the account.

We would like to know how these gentlemen, who we understand are "*believers*," reconcile their course in this case with the following:

"Take heed to yourselves: If thy brother trespass against thee, rebuke him; and if he *repent* forgive him. And, if he trespass against thee *seven* times in a day, and seven times in a day turn unto thee saying, I repent, thou shalt forgive him." — LUKE, CHAP. XVII, 3-4 VER.

Reduction of Humero-Scapular Articulation, of Nine Weeks Standing.
By F. F. HURTHAL, M.D., Massillon, Ohio.

Mr. Arrat, aet 60, of strong muscular development, while engaged in mining coal had the head of the humerus dislocated, forward and upward, under the pectoral muscles, by the falling of a portion of detached rock that forms the roofing. A *soi disant* German doctor was called in attendance, who, after sundry girations, pronounced all right, and contented himself with the application of strong liniments, promising a certain and speedy cure.

During the succeeding nine weeks, he occasionally visited the

case. His attention was often directed to a large tumor under the clavicle, and a deep depression at the apex of the shoulder. The unfortunate man was assured by the *doctor* that this condition of things was to be expected—that the tumor was but a swelling of the muscles, which the liniments would soon remove, and the depression at the shoulder would be filled up with new flesh. Under these assurances, Mr. A. bore his sufferings with Christian resignation, until the lapse of nine weeks, when, by the advice of friends, he determined to seek the opinion of Dr. John Schertzer, of this place. A moment's examination convinced Dr. S. that the humerus remained unreduced, and so gave his opinion to the patient and friends, at the same time stating that a proper effort ought to be made for its reduction, guarding his prognosis, that from its having remained so long out of place the effort might be unsuccessful, but as he was he must remain for life a cripple.

Mr. Arrat at once determined to undergo the trial, and arrangements were made for his returning to the office of Dr. Schertzer on the following morning.

At the request of Dr. S., I accompanied him to see the case and aid him in the trial for reduction. The condition of the patient was at once discernible. Luxation of the head of the right humerus, under the pectoral muscles, could not for a moment be questioned. My opinion on the propriety of attempting reduction, accorded with that before expressed to the patient. The necessary preparations being made, Dr. Schertzer first tried his usual way of reducing dislocations at this articulation, by the sling method, without in the least disturbing the head of the bone in its new place of residence. At his request I then applied Jarvis' adjuster. Soon after the extending process was commenced, the pain become unbearable; chloroform was administered gently and gradually, with short intermissions; I continued the extension for nearly one hour. The head of the humerus was seen to leave its resting place, and finally arrived at a point external to and immediately below the glenoid cavity. The sling was then passed between the arms of the shoulder fork and brought as near the head of the humerus as possible, which formed the fulcrum upon which to work the head up to its place, the arm with the apparatus still attached being used as a lever with which oscillating motions were made until we had the satisfaction of seeing the head of the humerus again resting in its normal place, and our efforts crowned with entire success. A large wedge-

shaped pad, secured by the figure of 8 bandage, with a shoulder-splint bound down to the well side, and to the other extremity, of which the injured shoulder was raised, constituted the principal dressings. The forearm and elbow was sustained in a sling.

Some two months after the reduction, the man returned to his labor of mining, with nearly all of the motions of the arm perfectly restored.

“EYE SURGERY.—We are glad to observe that Dr. Williams is succeeding in establishing a position in his speciality. We know of no man in our city who has stronger claims to confidence, in this department of surgery, than Dr. Williams. He has for two or three years been cultivating a tri-weekly clinic, which has grown to considerable importance. These clinics are held at St. John’s Hotel for invalids, and are accompanied by clinical instruction in diseases of the eye, of which many of the students in attendance at the Medical College of Ohio are availing themselves. We also learn that Dr. White is giving practical instructions, at the same place, in *Physical Diagnosis*. All such efforts contribute to the attractions and facilities for medical teaching in our city, and we wish these gentlemen abundant success.”—*Cincinnati Medical Observer*.

We have no personal acquaintance with Dr. Williams, the oculist noticed in the above editorial of the *Observer*. What, however, we have heard in regard to the pains he has taken to educate himself in his speciality, the success attending his practice, and his general bearing as a gentleman, have impressed us very favorably. Persons laboring under diseases of the Eye will find in Dr. Williams a very high order of qualifications.—*Editor O. Med. & Sur. Jour.*

FOREIGN HONORS TO AN AMERICAN SURGEON.—Dr. W. J. Holt, of Augusta, Ga., has just received, through the Russian minister to this country, the “decoration” of Commander of the Imperial Order of St. Stanislaus, in consideration of his services during the campaign in the Crimea. The cross is of massive gold, and beautifully wrought. Dr. Holt was appointed member of the Order of St. Anne, while still in the service of Russia; and this second compliment, now that he has left that service, testifies to the Czar’s appreciation of the ability with which the surgeon’s duties were discharged.—*N. A. Medico-Chir. Review*.

SYDENHAM SOCIETY.—From the report of the fifteenth annual meeting of the Sydenham Society, we regret to learn that the income of the Society has been for some years barely sufficient to meet the current expenses. It is a matter of extreme regret that such a valuable series of publications as that issued by this Association should not be continued, and we trust that the announcement that the Society is in want of funds will be sufficient to induce many to subscribe who have not hitherto done so. When one considers that for the small sum of about five dollars the members receive from two to four volumes, of great value, and beautifully printed, it is remarkable that the list of subscribers should be so small. One of the books for the current year has just been received here. It is a translation of Küchenmeister's "Manual on the Animal and Vegetable Parasites of the Human Body," and will be shortly followed by the second volume. It is illustrated by superb colored plates, and although a translation from the German, will supply the void which, we lately remarked, existed on this subject in English medical literature. Von Siebold's essay on "Intestinal Worms," will also be supplied to subscribers for this year. Gentlemen wishing to subscribe, can do so by applying to Dr. R. H. Salter, No. 1 Staniford street.—*Boston Med. Jour.*

MEDICAL PRACTICE IN BELOOCHISTAN.—To the practice of medicine in Beloochistan there are only two slight draw-backs. When the physician gives a dose, he is expected to partake of a similar one himself, as a guarantee of his good faith. Should the patient die under his hands, the relatives (though by no means bound to exercise it in all circumstances) have the right of putting him to death, unless a special agreement has been made freeing him from all responsibility as to the consequences; while he, should they decide on immolating him, has no reasonable ground for complaint, but is expected to submit to his fate like a man and a hakim. In other respects the amateur will find an easy field.—*Blackwood's Magazine* for October.

THE following anecdote is told by the Paris correspondent of the *New York Daily Times*, and is too good to be lost:

"A friend told me a day or two ago a good anecdote of Phillip

Ricord, the distinguished surgeon of the Hospital du Midi. Ricord was sitting in one of the orchestra stalls at the Grand Opera—it is not often he gets time to go there—and all at once when the house was still, and in the midst of one of the songs of a principal barytone, he commenced cheering in the most approved style. Everybody looked at Ricord, but did not understand. As the singer grew warm and commenced gesticulating with vehemence, Ricord's enthusiasm augmented, and other gentlemen at his side, feeling the infection, followed his example, and applauded also. Ricord, turning around briskly wanted to know what they were applauding for? 'To tell you the truth, sir,' was the reply, 'it was partly from your example.' 'But you don't know why I applauded?' replied Ricord. 'I was applauding the marvellous effects of the Iodide of Potassium!' The singer was one of Ricord's patients, who had a stiff elbow joint, for which he had been taking for some time this remedy, and it was when Ricord saw the arm unbend itself in the gesticulations of the singer, that he broke out into such enthusiasm. His neighbors remained silent for the rest of the evening."

The Microscope in the Diagnosis of Consumption.

It is well known that the attention of microscopists was long since directed to the investigation of the sputa in suspected phthisis, and that but little, if anything of a practical result was obtained, for a long time, at least, by the most competent observers. In the proceedings of the Harveian Society, published in the London Lancet, July 11, 1857, there is an interesting paper by Dr. Theophilus Thompson upon the use of the microscope in diagnosing tuberculous disease. After mentioning the formerly adverse evidence of Rainey, Addison and Bennett (the latter of whom, however, "has lately added his testimony to the value of the microscope" in these cases,) Dr. Thompson refers to the experiments of Dr. Andrew Clark, and to his demonstrations at his lectures at Haslar, which enabled him to establish, as he believes, "the real microscopical indications of tubercular sputum."

Six cases are cited by Dr. Thompson, and these give both positive and negative evidence of the value of the wonderful instrument which has, of late years, done so much to advance pathological investigations. In one instance the decision of the microscope tri-

umphed over "the gloomy prognostications which an accomplished auscultator had perseveringly maintained." In still another, "doubtful signs" were confirmed, and the diagnosis of "slight tubercular deposit, tending to restoration, was confirmed by the result.

The rapidity of progress of the disease, is, according to Dr. T., capable of being pretty accurately gauged by means of microscopic scrutiny.

We subjoin certain of Dr. Thompson's diagnostic deductions and data.

"When tubercular deposit is present in the pulmonary vesicles, there may be seen, contrasting with the usual epithelial cells, some which are dark, swollen, spherical; some more advanced, larger, and mishaped; others shrivelled or burst, and extruding nuclei, which nuclei when enlarged, correspond with the 'tubercle corpuscles' of Lebert. * * * * 'The general moleculo-granular appearance (in which his attention had been originally directed, and which he much regretted having erroneously figured in his Clinical Lectures,) was not conclusive; the sputum which is really characteristic containing isolated masses of moleculo-granular material, and having interspersed corpuscles of various forms, overgrown or jagged, and setting free nuclei; the various proportions of pus, or fat, or blood, giving collateral indications of the amount of surrounding deterioration in the lungs; while amongst evidences of rapid progress might be specified the appearance of large and numerous areolar meshes, still retaining their adhesion and elasticity. In chronic cases, portions of this tissue appear, inelastic, teased out, and broken down, in consequence of long imprisonment, whilst a diminished proportion of fat, and the appearance of cholesterine plates, and still more of earthy particles, were often indicative of a mode of restoration."

It is certainly desirable that further investigation, in this direction, should be made. Whatever can aid us in detecting the early presence of so formidable a foe, is of inestimable value. If the microscope can antedate the ear, we may hope to *steal a march* upon the adversary. At all events, with so many zealous cultivators of microscopy let no opportunities of this sort escape examination. We suggest the intervention of the "*Microscopical Department*" of the Boston Society of Natural History, as well as the careful attention of private histologists.

MOLASSES FROM THE CHINESE CANE.—Our hope in regard to the successful production of sugar from the “Sorgho Sucre,” is small, but we agree with the South (Richmond) that the Patent-office at Washington did a good thing in distributing through the country the seed of the “Sorgho Sucre,” or Chinese sugar cane; for, in view of the high price of molasses, it is likely before many years to be extensively cultivated for the saccharine juice with which it abounds, and which by an easy process, can be converted into very good syrup or molasses. Messrs. Joseph Sinton & Sons, of Henrico, Va., according to the *South*, obtained some of the seed and raised a good crop of the cane, which is valuable as cattle-feed, even after all the saccharine juice is pressed out. The gentlemen tried the cane as a molasses-producer, with the following results:—One hundred and ten stalks were cut and pressed twice in a cider-mill. The juice obtained, amounting to twenty-seven quarts, was then put in a large dinner-pot and boiled, one hour and forty-five minutes, making one gallon and a pint of molasses. The article is good and very enticing to those who love sweet things of the kind. The “Sorgho Sucre,” though a foreigner, grows and thrives like a native of American soil.—*Hunt's Merchants' Magazine*.

HYDROCOTYLE ASIATICA.—This is the name of a new drug which has lately been much used in France in the treatment of certain cutaneous affections. The Hydrocotyle Asiatica is an umbelliferous plant, found in the eastern portion of the Asiatic continent, and was introduced to the notice of the Imperial Academy of Medicine of Paris, by M. Lépine. The action of the drug has been tested by MM. Cazenave and Devergie, of the Hôpital St. Louis, who have, as far as experiments have been made, reported favorably upon its merits. The form of its administration is in granules or syrup. An hydro-alcoholic extract is obtained *in vacuum*, which prevents deterioration by atmospheric influence, as the plant itself rapidly undergoes change. It exercises a particular virtue over various cutaneous affections, particularly those of long standing and dependent on the presence of syphilitic or scrofulous taint. It has been administered with success in cases of leprosy and elephantiasis. M. Cazenave reports that its effects are remarkable and constant. It causes a considerable augmentation in the secretion of the urine, and an increase in the heat of the skin. When given in excess, it produces copious sweats, a sensation of heaviness, uneasiness, and

giddiness of the head. We believe that little notice has as yet been taken of this new medicine in this country. Mr. Price, however, has been trying its efficacy at the Great Northern Hospital, and also at the Blenheim Free Dispensary, and has found that benefit has certainly followed its use in some instances of obstinate syphilitic eruptions, and in chronic eczemas. The preparations are to be obtained of Messrs. Savory and Moore, of New Bond street.—*Lancet*, Oct., 1857.

ECZEMA OF THE FACE IN CHILDREN.—Dr. Behrend recommends the following application for the crusts which frequently cover the face of children: Cod-liver oil fifteen, and bicarbonate of soda two parts.—*Med. Times and Gaz. from Bull. de Thérap.*, Sept. 17.

EFFECT OF TOWN LIFE ON MORTALITY.—Dr. Letheby, in his late annual report on the “Sanitary condition of London,” states “the mean age at death of adult males in the city, is 51, and of females, 55. In all England it is 60 and 61; so that, in one case, about 9 years is taken from the life-time, and in the other, about 6. And again, if we examine the longevity of adults at other ages, it will be seen that the contrast is equally great. At 45 and upward, the mean age at death of the male citizen is 62, and of the female 65. In all England it is 68 and 69. At the age of 65, a man with us may expect to live to the 72d year, and a woman to the 75th; but in the whole of England the expectancy is to the 76th and 77th. These are the numerical exponents of the strain upon a city life, and they testify of the penalties that are paid to excessive civilization.—*Med. Times and Gaz.*, Nov. 7, 1857.

AMERICAN QUACKS IN LONDON.—Since the adventure of Dr. Fell, several American quacks have arrived in England, evidently impressed with a belief in our extreme gullibility. We cannot deny that one 'cute Yankee has made a good harvest among our simple ones, but do not think the process will be soon repeated.

“Pudet hæc opprobria nobis
Et dici potuisse et non potuisse reFELLI.”

One of these newly-arrived men styles himself Dr. Watson, of

the "Reformed Medical College," United States, and is now distributing a pamphlet, entitled "Remarks on the Rational Treatment of Spermatorrhœa, and its Concomitant Complaints, by means of the American Curative Instrument," price £3 3s. in silver. This precious production is the very type of unblushing impudence, ignorance, and quackery. Persons are cautioned against "applying to country practitioners, who too often not only protract the cure to a longer period than necessary, but not unfrequently damage the constitution of the patient by improper treatment." Such assurance is almost sublime; the wolf cautioning the sheep against their shepherd. All the artifices which the vulpine nature of quackery can suggest are brought into play; garbled extracts falsely applied; the deceptive use of phrases apparently applied to the great and good Dr. Watson; the lie concealed, the lie suggested, and the lie declared. The system is completed by the institution of a "Philanthropic Society of Grateful Patients" of Dr. Watson, cured of "great nervousness, debility, exhaustion of the system, groundless fears, thoughts of melancholy, and directed by Providence (*sic*) to that gentlemen." A "Reverend" H. Williams, in pursuance of the resolutions of the committee, transmits a copy, gratis, to thousands of people through the post—and so the sham is completed. As this abominable quack courts publicity, we accord it to him. He seeks a recognition of his services, and will receive it in the indignation of our readers.—*Lancet*, Oct. 17, 1857.

TWO MEDICAL VICTIMS OF THE DANGERS INCIDENT TO THEIR PROFESSION.—M. Geoffroy, a highly respected physician of Avignon, in France, formerly mayor of that city, and for many years at the head of the Asylum for the Insane, was lately assassinated by an epileptic inmate of the establishment. The wretched patient was subject to fits of furious mania, but had for some time past been very quiet, and was thought to be in a fair way of recovery. He was a tailor by trade, and busy at work, on the 30th of April last, during M. Geoffroy's presence in the ward. Toward the end of the visit, he requested the doctor to look at his leg, where he stated he was experiencing pain; and while M. Geoffroy was stooping to examine the limb, the man passed his arm round M. Geoffroy's neck, and thrust into the left side of his chest the long scissors used in his trade. He was just going to make a second thrust when he was

secured by the house-surgeon and the steward. The weapon had reached the heart, and M. Geoffroy died in a few moments. The patient had not evinced any dislike for the ill-fated physician, and was most respectful and docile. It is supposed the horrible deed was done while the patient was laboring under a hallucination. The other victim is a medical man named Salle, practicing in Nancy. This gentleman was completing the operation of tracheotomy, which he had undertaken upon a child suffering from putrid sore throat. Dr. Salle, who was only twenty-nine years of age, seeing the trachea quickly filling with blood, put his lips to the wound, and drew by inspiration the fluid ready to choke the child. The next day, the same putrid state of the fauces and the tonsils appeared in M. Salle, and forty-eight hours afterward he died, in spite of the efforts made by his colleagues to save their noble-minded friend's life.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.—

A new society has been formed, entitled the "National Association for the Promotion of Social Science;" and the first meeting is announced to take place on the 12th of October, at Birmingham, under the presidency of Lord Brougham. The object of this association, in the language of the prospectus, is, "to aid the development of the social sciences, and to guide the public mind to the best practical means of promoting the amendment of the law, the advancement of education, the prevention and repression of crime, the reformation of criminals, the establishment of due sanitary regulations, and the recognition of sound principles in all questions of social economy." The proposed mode of action is, to bring together, once a year, the different societies and individuals who are interested in furthering any of these objects. Among the general committee we observe the names of several distinguished members of the medical profession, and among others, those of Sir James Clark, Sir John Forbes, Dr. Connolly, Dr. Babington, Dr. W. Farr, Sir Charles Hastings, Dr. Southwood Smith, and Mr. Simon; and among the laity who are friends of the profession we find the names of the Right Hon. Mr. Cowper, the Right Hon. Mr. Napier, Mr. Headlam, and Mr. Hawes. In the Department of Public Health, Lord Stanley is President; and the committee comprises the names of some of the most active promoters, both lay and medical, of the objects of sanitary science.—*Dublin Hospital Gazette*, September 15, 1857.

ANECDOTE OF DR. RADCLIFFE.—Radcliffe, one of the most eccentric and witty men of his time, lived, at one time, in Bow street, Covent Garden. Between his garden and that of Sir Godfrey Kneller, the King's painter, a door had been made to allow the doctor the pleasure of visiting the rich collection of exotic plants contained in the latter garden. Radcliffe's servants became depredators; Sir Godfrey remonstrated; and the grievance continuing, Sir Godfrey sent his compliments to Dr. Radcliffe, accompanied by a threat to lock the door. The wit answered, that Sir Godfrey might "do with the door as he pleased, *so that he did but refrain from painting it.*" "Did my good friend Dr. Radcliffe say so?" cried Sir Godfrey. "Go back, present my service, and say *that I can take anything from him, but his physic.*"

This anecdote has been immortalized in verse :

"Quoth Kneller, 'I'll certainly stop up that door,
If I ever find it unlocked any more.'
'Your threats,' replied Radcliffe, 'disturb not my ease,
And so you don't *paint* it, e'en do what you please.'"

SANITARY CUSTOMS OF THE JEWS.—It is noticeable that in poor neighborhoods, which have been attacked by cholera, fever small-pox, and similar diseases, the Jews living there have in an extraordinary manner escaped visitation. The apparant causes of this sanitary fact are worthy of attention. 1. As regards food, it seems that even the poorest Jews are most particular in the food they eat. In obedience to the law of Moses, they use none of the blood or offal of animals; they are also particular in the choice of fish, and avoid both animals and fowls which are grossly or unwholesomely fed. 2. Intemperance in drink is rare among them; and even the very poor Jews are remarkable for their attention to moral family ties. There are, of course, exceptions, but this general characteristic is certain. 3. Their religion directs them to use great personal cleanliness. Ablutions are made before visting the synagogues, and on other occasions. Their houses are also thoroughly cleaned at certain periods from top to bottom. All the above acts are important to health, and the good effect of attention to them is evident. The rules are so simple, that they might be readily observed by the chief parts of the masses of people in the large towns among whom this ancient race are scattered.—*British Med. Jour., from the Builder.*

MEDICAL STUDENTS IN LONDON.—It is stated in a recent number of the *Lancet*, (Nov. 7,) that there are fewer students than usual registered this season in the different metropolitan schools. The total number is about 1,050; the number last season was upward of 1,100. In the provincial schools there is a still greater deficiency; and the same is said to be the case in Scotland and Ireland.

FEVER IN LONDON.—It appears, from the report of the London Fever Hospital for 1856, that the daily average of patients in the hospital throughout the year was about 110, by far the largest number admitted into the hospital in any year since its establishment, fifty-five years ago, exceeding by 300 the admissions in any former year. In regard to the types or forms of the fevers last year, there was nothing remarkable except the extraordinary proportion of typhus to typhoid, as compared with the three preceding years. The experience of the hospital shows that typhus, strictly so called, is the most prevalent form, but this comparative prevalence varies in different years, as well as at different periods of the same year. Thus, in 1856 there were 1,061 cases of typhus against 149 of typhoid (that form characterized by disease of Peyer's glands), being in the ratio of 7.11 to 1, while in the two preceding years (1854 and 1855), the proportion was only about 3 to 2, and in 1853, it was in the ratio of 2 to 1. The greatest disproportion was observed in March and April, in which two months there were 275 cases of typhus and only 16 of typhoid admitted—being in the ratio of 17 of the former to one of the latter. Again, it was observed that the months in which the two forms were most nearly equal were from August to November, the proportion in August being 1.4 of typhus to one of typhoid. Of that form of fever to which the term *febricula* has been given, characterized by the mildness of the symptoms, the absence of peculiar rash, and of any organic complication, there were 89 examples, all of whom recovered. The numbers admitted with scarlet fever were 183, being a slight increase as compared with the cases received in 1855. It was most prevalent in April and October, the admissions being 31 and 26 respectively. In regard to the acute diseases *not* fevers, they were, as usual acute affections of the various internal organs, with accompanying or symptomatic fever. They consisted of diseases of the brain, inflammation of the lungs, tuberculous affections in various parts, erysip-

elas, and acute and chronic diseases of the kidneys. Of this class, there was a large proportion—217. The mortality last year was 289, being out of the total numbers admitted and under treatment on the 31st of December, 1855 (1882), in the ratio of 15.3 per cent., including, of course, the deaths from fevers as well as from other diseases. Of the cases of typhus under treatment (1,117), the mortality was 204, or about 18 per cent.; of typhoid, it was 24 out of 180, or about 13 per cent. Of the 189 cases of scarlet fever, the deaths were 14, or 7 per cent. Of the other acute diseases, *not* fevers (291), there were 47 deaths, or about 16 per cent. To show the severity of the cases, and, in too many instances, the hopeless condition of the patients when admitted into the Hospital, it may be stated that 152 patients died within a week after admission, and of those 27 did not survive 24 hours. Comparing the mortality of 1856 with that in the preceding year, the proportion of deaths was much smaller. In 1855 the gross mortality was nearly 17 per cent. (last year it was 15); that from typhus 25 per cent. (last year it was 18); from typhoid 13 per cent. (last year it was nearly the same); scarlet fever was also less fatal last year than in 1855, being about 7.4 against 12.7 per cent.; while of the acute diseases not fever, the mortality was about 1 per cent. higher than in 1855. Notwithstanding the large number of patients in the hospital last year, imposing necessarily increased labor on those in attendance on the sick, the nurses and inmates of the establishment have, with a few exceptions, escaped. One of the housemaids was seized with typhus, but she recovered. Three of the nurses were also the subjects of typhus, and they also recovered, as well as another nurse who passed through a mild form of scarlet fever.—*Med. Times and Gaz.*, July 11th, 1857.

EXTRAORDINARY FECUNDITY.—It is stated in a recent No. of the *Magazine of Natural History, &c., of Moscow*, that the peasant Kirilow was presented, along with his wife, to the Empress. This peasant was married, for the second time, at the age of 70. His first wife was delivered twenty-one times: four times of four infants at a birth; seven times of three infants, and ten times of twins; in all, fifty-seven children, then alive. The second wife had already been delivered seven times; once of triplets; and six times of twins; in all, fifteen living children.

THE BEST MONUMENT TO JENNER. — A young lady was solicited to contribute towards the Jenner statue. “Nay,” she said reverently, “I consider I have already erected a monument to his honor,” and she pointed to her beautiful countenance; and true enough, thanks to Jenner’s discovery, there could not be discerned upon it the smallest disfigurement by the small-pox. Acting upon this idea, we have to make the following smooth-faced proposition. We beg to suggest that every handsome lady, single or married, or widow, who, having been duly vaccinated, has succeeded in preserving her beauty from the ravages of the above fearful visitation, be requested to take her turn in standing for one hour only in her lifetime on a pedestal in Trafalgar square. We maintain that the exhibition of her face, in its unblemished state of loveliness, would be the handsomest, at the same time the most appropriate statue that could possibly be erected to Jenner; and a statue, too, that would be sure in every age to command the ready homage of all men.—*Punch*.

WE copy the following touching lines from the St. Louis *Medical and Surgical Journal*. They are said to have been left on the table of Dr. C. A. Pope, by a patient who was about departing for Niagara, “where the water runs down hill, with nothing on earth to hinder”:

“When sorrow’s cloud is cast athwart
 The sunshine of my mind,
 When I, with gloomy care distraught,
 No recreation find;
 When sighing o’er my hapless lot,
 And what I used to be—
 I’ll seek some quiet, tranquil spot,
 And pass a small bougie.

Let strictures on my conduct pass;
 Unnoticed let them be;
 A stricture somewhere else, alas!
 Is more deplored by me.
 In hope that blight on manhood’s bloom
 I yet effaced shall see;
 I’ll hie me to my quiet room,
 And pass a small bougie.”

SCOTT'S OINTMENT IN INDURATED TESTICLE.—We have seen Mr. Coulson, at St. Mary's Hospital, treat indurated testicle by applying Scott's ointment on lint next the scrotum, then a piece of flannel and oil silk, with a good suspensory bandage. The patient is thus enabled to go about, and a cure is effected within a short time. Scott's ointment is the ceratum hydrargyri compositum of the London Pharmacopœia, and consists of the stronger ointment of mercury, soap cerate and camphor. Mr. Coulson is at this moment treating a case of chronic induration of the breast of a woman, from inflammation, with the same ointment and pressure as recommended by Scott in his work in 1828.

We noticed a case of adenitis of the right groin in a boy, which was brought on by a strain, and which, after attaining the size of a fist, suppurated, leaving an ulcer with the gland projecting from its bottom. The strain occurred seven weeks ago. The enlarged gland was freely covered with red precipitate on five different occasions, with the effect of already nearly destroying the whole of it, without any bad effect to the patient.—*London Lancet*.

NEW FOOD FOR BEES.—Two agriculturists of the Department of the Var observed one day, in the month of May last, that all their bees had left their hives, although the latter were filled and exceedingly heavy. Towards evening the fugitives returned heavily laden, but on the following morning set out again in a direction which was this time carefully noted by the farmers, who had been watching their doings. They immediately followed them, and soon arrived at a farm where cakes of tilseed, which had been previously subjected to the oil press, were being beaten up into a paste with water, to be used as manure for potatoes. There, to their surprise, they saw their bees clustering round the tubs containing the paste, evidently enjoying a luxury hitherto unknown to them. The lesson was not lost upon the agriculturists, who immediately procured their bees abundance of this food, and have now been rewarded with nearly ten times the usual quantity of produce, besides an immense increase in the reproduction of the insect.—*British Medical Journal* Sept. 26, 1857.

DR. McMUNN'S ELIXIR OF OPIUM.

THIS IS THE PURE AND ESSENTIAL EXTRACT FROM THE NATIVE DRUG.

It contains all the valuable medicinal properties of Opium in natural combination, to the exclusion of all its noxious, deleterious, and useless principles, upon which its bad effects depend.

It possesses all the sedative, anodyne, and antispasmodic powers of Opium,
To produce sleep and composure. To allay convulsions and spasmodic action.

To relieve pain and irritation, nervous excitement and morbid irritability of body and mind, &c.

And being purified from all the noxious and deleterious elements, its operation is attended by

No sickness of the stomach, no vomiting, no costiveness, no headache,

Nor any derangement of the constitution or general health.

Hence its high superiority over Laudanum, Paregoric, Black Drop, Denarcotized Laudanum, and every other opiate preparation.

THE ELIXIR OF OPIUM IS GREATLY SUPERIOR TO MORPHINE.

1. In its containing all the active medicinal virtues of Opium in native combination, and in being its full representative, while Morphine, being only one of its principles, cannot alone, and that in an artificial state of combination too, produce all the characteristic effects of so triumphant a remedy, when four or five of its other valuable principles are excluded.
2. In its effects, the Elixir is more characteristic, permanent, and uniform, than any of the *artificial compounds* of Morphine.
3. And as a *Preparation*, it is not liable to decompose or deteriorate like the *Solutions of Morphine*; and thus is obviated a serious objection, which has prevented the latter from being used with precision and effect.

To speak summarily, the Elixir of Opium, as a remedy, may be adopted in all cases in which either Opium or its preparations are administered, with the certainty of obtaining all their salutary and happy effects, without being followed by their distressing and pernicious consequences. And in the greatest number of those cases in which no other form of opiate can be used without occasioning the worst effects, it can also be used with the most eminent success and the happiest results.

The discovery of this inestimable preparation, so highly purified from all the objectionable elements of the native drug, without ever changing or impairing its medicinal virtues or efficacy, is a triumph in the chemical analysis of opium never before achieved, and places the Elixir of Opium pre-eminent in the list of all the preparations of opium hitherto made.

Those who take opium and its ordinary preparations, cannot be ignorant of the fact, that its distressing and pernicious effects result from the operation of its deleterious principles, and that the tremors, languor, and lassitude with which its devotees are afflicted, and for which they repeat the dose to relieve, are sensations of its own creation. In such cases, this preparation will afford a gratifying substitute.

But in consequence of the exclusion of these deleterious principles from the Elixir of Opium, it is not liable to derange the functions of the system, nor injure the constitution and general health—hence its high superiority in all cases in which the long-continued and liberal use of opiates is indicated and necessary to allay pain and spasmodic action, and induce sleep and composure, as in cases of fractures, burns or scalds, cancerous ulcers, and other painful affections.

It possesses yet another important advantage, which is of paramount consideration in the treatment of some of the most violent and dangerous spasmodic diseases, such as Tetanus, Epilepsy, Hysteria, Tic Doloieux, Convulsions in Hydrophobia, &c., &c., which is, that the quantity necessary to overcome and control diseased action in those dreadful maladies, is not limited by the deleterious

THE OHIO
MEDICAL AND SURGICAL JOURNAL.

Vol. 10.

Columbus, March 1, 1858.

No. 4.

PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Scraps from the Travels of Dr. David Livingstone*, with Remarks, By the Editor, JNO. DAWSON, M. D.

The Missionary Travels and Researches in South Africa, by Dr. David Livingstone, have developed much in regard to the geology, the hydrology, the meteorology of the continent; its natural history, ethnology, commerce, and the state of Medicine among the inhabitants.

It might not be out of place to state to the reader that Dr. Livingstone is a medical man, a Licentiate of the Faculty of Physicians and Surgeons of Glasgow. His medical observations, as a consequence, are entitled to more respect from the profession than they otherwise would be.

Another circumstance ought not to be omitted. He is of humble origin—in early life worked at a branch of mechanics; and while in this capacity concocted the plans that have resulted in giving him character throughout the civilized world. From the position of an apprenticed boy he has arisen to fame as a discoverer.

Dr. Livingstone went to Africa as a Missionary, and remained there about sixteen years. There were periods as long as three years, during which he never heard his own language spoken. The success of his Missionary efforts was retarded by the condition in which he found the inhabitants in the interior of the continent. He remarks, in a number of places, that but little if any thing can be done for the introduction of the Christian religion until the people are civilized—made acquainted with agriculture, the arts, commerce, etc. He regards it that a people must know how to plow, sow, and

reap; must know how to manufacture the implements of husbandry, and must do something in the way of exchanging their commodities with other nations, before they are qualified to appreciate a religion such as the Christian. This rather favors the theory, that grades of intellectual culture require a correspondence in religious systems.

The travels of Dr. L. embrace a journey from the Cape of Good Hope to Loanda, on the West coast; thence across the continent, down the river Zambesi, to the Eastern coast. Loanda, on the West coast, is in about latitude 8 deg., S. The point on the East coast, where the travels terminated, is in latitude 17 deg., 53 min., 8 sec. The time occupied in making the tour from Lake Ngami wanted only a few days of being four years.

METEOROLOGY.—The temperature of South Africa of course is varied by the usual circumstances, altitude, topography, the presence or absence of large bodies of water, rains, etc. At Colungo Alto, in latitude 9 deg., 8 min., and east of the terminus of the Congo river some 300 or 400 miles, on the 24th of May, the winter in this region, the thermometer stood at 80 deg. by day, and 76 deg. by night. The temperature taken during the month of December, on the banks of the Coanza, showed the general range of the thermometer to be 67 deg. at 7 A. M., 74 deg. at midday, and 72 deg. in the evening. The Coanza river, at the place where this observation was made, is distant from the western coast some 400 miles, and has an elevation of 4,210 feet above the sea. At Cabango, latitude 9 deg., 31 min., S. longitude 20 deg. 31 min. E., the cold in the mornings was severe to the feelings, the thermometer ranging from 58 deg. to 60 deg., though when protected sometimes standing as high as 64 deg. at 6 A. M. When the sun was well up the thermometer was noticed to rise to 80 deg.; in the evenings it was about 78 deg. These observations were made in the month of May. The author remarks: "All the interior of South Africa has a distinct winter of cold, varying in intensity with the latitudes. In the central part of the Cape Colony, the cold in the winter is often severe, and the ground is covered with snow. At Kuruman snow seldom falls, but the frost is keen. There is frost even as far as the Chobe, and a partial winter in the Barotse valley, but beyond the Orange river we never have cold and damp combined. Indeed a shower of rain seldom or never falls during winter. From the Barotse valley it is questionable if it ever freezes; but during the prevalence of the south

wind; the thermometer sinks as low as 42 deg., and conveys the impression of bitter cold." In the month of June, the middle of winter, observations were made on the banks of the Leeba, a river situated not far from the middle of the continent, and a tributary to the Zambesi. The temperature of the water in the morning was 47 deg., and that of the air 50 deg., which being loaded with moisture was very cold to the feelings. During the day the thermometer stood at 88 to 90 deg.; in the evenings it was 76 to 78 deg. In the month of November observations on the temperature were made in the Batoka country, situated not far from the centre of South Africa, and having an elevation of some 5,000 feet. The temperature at 6 A. M. was 70 deg., at midday 90 deg., and in the evening 84 deg. Water boiled at 202 deg. In the month of January, the summer of this region, and on the Zambesi river, at a point a little to the east of the centre of the continent, the thermometer at sunrise stood at from 82 deg. to 86 deg; at midday in the coolest shade, at 96 deg. to 98 deg., and at sunset at 86 deg.

It was observed, as a very general rule, that the difference between the day and night temperature was great. This was also more conspicuous in those regions near the equator drenched daily with rain, than further south, in the vicinity of the Kalhari Desert, where it rains but seldom.

Traveling from the Cape north to the Makololo country, the author passed through the east side of the Kalhari Desert. This Desert lies between 20 deg. and 26 deg. S. latitude. Here the atmosphere at times becomes very dry. During the dry seasons a *hot wind* blows over the Desert from north to south. It is said to be so devoid of moisture as to cause the wood of the best English seasoned boxes to shrink. The ferules of ram-rods made in England became loose, and on returning to England fastened again.

GEOLOGY OF SOUTH AFRICA.—The author gives an ideal section of South Central Africa. This section shows an *elevated valley form* of the central portion of the continent. The interior seems to be a great *central plateau*. The coast east and west is fringed with mountains. The height in the central portion, at Lake Ngami for example, is 2,500 feet. At Pungo Andongo, not far from the west coast, the rocks attain an attitude of 4,000 feet. Then again at Kalomo, on the east side of the continent, the elevation is 5,000 feet. At Lake Dilolo (latitude about 12 deg. S.,) there seems to be a water-shed between the river systems that flow to the East and

West. This lake, by giving a portion of its waters to the Kasai, a tributary of the Congo on the West, and another portion to Zambesi on the East, communicates with the Atlantic and Indian Oceans. The continent on both sides, from the *ideal section* given, is marked with hills and mountains. These are made up of Trap-rocks and others of igneous origin. Proceeding towards the interior from each coast, Mica scist and Sandstone make their appearance. The central portion, where the greatest depression exists, is figured as being underlaid with Trap, radiated Zoolite ; and at several places Granite makes its appearance on the surface. Coal, and iron ore are found on the east side of the continent, in the vicinity of the Zambesi river.

The most elevated portions of South Africa the author thinks is in the vicinity of the Equinoctial line, as it is here that the two great rivers, the Nile and the Zambesi, take their rise. The Equatorial region is not, as was formerly supposed, a collection of high mountains. Dr. Livingstone is of the opinion that the basin-shaped structure which he explored on the south extends north to the Equator and beyond, and that the periodical floods of the Zambesi and the Nile are due to the water which periodically accumulates in this basin from the excessive rains.

VICTORIA FALLS.—Not far from the centre of South Africa (latitude 17 deg., 51 min., 54 sec., S, longitude 25 deg., 41 min., E.,) on the Zambesi river, is what the author is pleased to term "*Victoria Falls.*" The river at the point where the water takes its leap, is a thousand yards broad. Below the falls it is suddenly compressed into a space of fifteen or twenty yards. "The entire falls are simply a crack made in a hard basaltic rock from the right to the left bank of the Zambesi, and then prolonged through the left bank away through thirty or forty miles of hills. The height of the falls is about 100 feet. The work is much fuller in details on the geology than could have reasonably been expected, considering the many obstacles in the way of research.

In regard to the physical conformation of the African continent, the author's observations verified the hypothesis put forth by Sir R. I. Murchison, President of the Royal Geographical Society, etc., in his Presidential Address to the Society in 1852. Sir R. I. Murchison arrived at his results by reasoning ; Dr. Livingstone from personal observation. Murchison's method is an instance of the use of known truths in ascertaining those that are unknown. While in his *studi-*

um in London he elaborated a theory in regard to the physical conformation of Africa, that was scarcely improved upon by observation.

HYDROGRAPHY.—Dr. Livingstone's researches have done much to correct the public mind in regard to the manner in which the interior is supplied with water. The great Sahara Desert, north of Soudan, and the Kalhari Desert in the south, have been looked upon as typical of the "unknown regions;" and not until Dr. Livingstone's researches was any thing definitely known. It seems, however, that South Africa, with the exception of a small desert, abounds in lakes and rivers, fully as much as the territories lying between us and the Rocky Mountains. The lakes are not of very great extent, or depth. Lake Ngami, discovered by the author, is something like 100 miles in circumference, but in many places very shallow, and interspersed with small islands. Lakes Tagayica, Marava, and Shuia, farther north, are figured as being larger. The two rivers before noticed, the Congo and the Zambesi, originate in the interior, the former flowing to the west, the latter to the east. These rivers for length and breadth rival the river system of the Mississippi valley. Their numerous tributaries make a plexus that covers over the whole country, supplying every part with abundance of running water. We have no room for the many names of the rivers figured on the detailed map constructed from the astronomical observations of Dr. Livingstone. But it is refreshing to contemplate their number and size. At their sources in the central plateau they are said often to be very broad and shallow, covering, in some instances, large tracts of country; giving to the country during the rainy season the appearance of a system of lakes. Viewing the map it seems, indeed, that there is scarcely any portion of the vast territory that is not pretty well supplied by streams of water.

AGRICULTURAL CAPACITY OF THE COUNTRY.—The author witnessed but a comparatively small portion of the country but what was fertile. The soil upon the plains as well as that in the valleys and river bottoms, from the character of vegetation it sustains, could not be otherwise than rich. In most places the soil is a deep black loam, in many it is red from the presence of iron. The plains towards the equator are covered with grass; are in fact great natural meadows supporting herds of buffalo, elephants, etc. Clumps of trees, beautiful groves, and large forests relieve the monotony of the scenery. The natives in the interior of Africa use only the hoe as an instrument of

culture, and the labor is performed by the females. This is true of the tribes in all the interior of South Africa—"The men engage in hunting, milk the cows, and have the entire care of the cattle; they also prepare the skins and make the clothing." Dr. Livingstone regards the soil as equal to the production of any kind of tropical grains or fruits. He saw the sugar-cane, the coffee-tree, the cotton and indigo plants growing wild. He also witnessed on the Zambesi, rice fields. Maize and beans, grow everywhere, and in some localities sweet potatoes, and melons and pumpkins. Besides such articles, Africa produces spontaneously a great variety of edible substances that are indigenous. With no part of the book were we more surprised than with what relates to the variety in dietetics. The soil produces without labor, in many places abundance of food for the natives. We have no space to enumerate the articles of spontaneous growth used as food. At the head of them seems to stand a substance called *manioc*, which the author states can be eaten either raw, roasted, or boiled, as it comes from the ground; or fermented in water, and then roasted or dried after fermentation, and baked or pounded into fine meal; or rasped into meal and cooked as *farina*; or made into confectionery with butter and sugar. The leaves boiled make an excellent vegetable for the table. The plant bears drought well, never shrivels up like other plants when deprived of rain. The root rasped while raw, placed on a cloth and rubbed with the hands while water is poured upon it, parts with its starchy glutinous matter, and this, when it settles at the bottom of the vessel and the water is poured off, is placed in the sun till nearly dry and thus forms the *tapioca* of commerce. This is but a specimen of the plants which the soil of Africa spontaneously produces as food for the natives.

From the character of the soil, the climate, etc., Dr. Livingstone concludes that South Africa ought to produce cotton, rice and sugar in quantities sufficient to answer the purposes of the world. Millions and millions of acres of prairie and river bottoms, as fertile as could be desired, might, he thinks, be brought into cultivation, a commerce thus established and large fortunes realized. At present nothing that the soil directly produces is exported. Elephant's tusks, beeswax and slaves are the principal exports. Among the central tribes money is unknown, there being no word in the language which represents gold or silver. The delta of the Zambesi, on the east coast, is made up of debris from the interior, washed down by

this great river and its tributaries. The soil is here very spongy, and water is obtained by digging at a few feet below the surface. The delta near the river and upon its most elevated spots is occupied with villages, huts, and in the Portugese possessions, there are a few houses built on tiles. The land here is so fertile, says Capt. Hyde Parker, that it will produce any tropical plant without much trouble. The inhabitants raise peas, rice, cotton, onions, beans, pumpkins, maize—or rather when the seed is once planted a succession of crops is the result.

From this brief notice of the agriculture of the country the reader cannot fail to be impressed with the belief that the soil is not cultivated at all. What can be done with a hoe, and that often made of wood, embraces all that we have of the farming process in the interior of Africa. Work is unnecessary to provide for the wants of the body. Nature has furnished a profusion and as long as the supply comes from this source, the native mind will be apt to continue to regard agricultural labor as a matter of supererogation. How far it is capable of being operated on by the excitements of trade and commerce with other nations, is a question that future schemes of benevolence must solve. European nations have been at work for four centuries on the borders of South Africa, and the natives have been taught to add to their list of necessaries fire-arms, powder, brandy, tobacco, different kinds of cloth, glass beads, coral, for which articles they now barter, as they did two hundred years ago, slaves, ivory, gums and beeswax. The Portugese in the Mozambique region work the natives as slaves, in gold mines, though the amount annually produced is insignificant.

ETHNOLOGY OF SOUTH AFRICA.—Dr. Livingstone's contributions to the young science of ethnology are by no means meagre. It is true that his observations on this department are very much scattered through his journal of travels; yet when all that he has said on the subject is carefully gathered together, it becomes valuable because it seems to be incidentally expressed, rather than in the support of any particular theory. His observations embrace something of the physical conformation of the natives, their intellectual development, governmental and social customs, the system of morals that obtain among them, their diet, diseases, etc., etc.

The natives vary very much in different regions, so far as size and color is concerned. Some tribes are of low stature, while others, as for example, the Makololo, are tall, averaging six feet in height, and

well proportioned. The *color* also varies very much. A large proportion are not black but *coffee colored*. The author thinks the deep black color due not to intensity of heat, but to *heat* and *moisture* combined. We extract the following :

“Apart from the influences of elevation, heat, humidity and degradation, I have imagined that the lighter and darker colors observed in the native population run in *fine longitudinal bands* along the southern portion of the continent. Those on the sea-board, both east and west are very dark ; then two bands of lighter color, lie about three hundred miles from each coast, of which the westerly one bending round, embraces the Kalhari Desert and Bechuana countries; and then the central basin is very dark again.” * * *

As proof of this view the author states that the dialects spoken in the extreme south, whether Hottentot or Caffre, bear a close affinity to those of the tribes immediately on their northern borders. One glides into the other, and their affinities are easily detected. In regard to the physical conformation of the tribes inhabiting the sources of the Congo river, the author remarks : “All the inhabitants of this region as well of those of Londa may be called true negroes, if the limitations formerly made be borne in mind. The dark color, thick lips, heads elongated backward and upward, covered with wool, flat noses with other negro peculiarities are general ; but while these characteristics place them in the true negro family, the reader would imbibe a wrong idea if he supposed that all these features combined are often met with in one individual. All have a certain thickness of the lips, but many are met with in every village in whom thickness and projection are not more marked than in Europeans. All are dark but the color is shaded off in different individuals from deep black to light yellow. As we go westward we observe the light color predominating over the dark ; and then again when we come within the influence of damp from the sea air, we find the shade deepens into the general blackness of the coast population. The shape of the head with its woolly crop though general, is not universal. The tribes on the east side of the continent, as the Caffres have heads finely developed and strongly European. Instances of this kind are frequently seen, and after having become familiar with the black color, so as to forget it on viewing the countenance, I was struck by the strange resemblance some natives bear to certain of our own English notables. The Bushmen and Hottentots are exceptions to these remarks, for both the shape of their

heads and the growth of the wool are peculiar. The latter, for instance springs from the scalp in tufts with bare spaces between, and when the crop is short resembles a number of black peppercorns stuck on the heads of the Balondi and Moravi."

In regard to another tribe, the Bashinge, the author remarks: "they seem to possess more of the low negro character than either the Balonda or Basongo; their color is generally a dirty black, forehead low and compressed, noses flat and much expanded laterally, though this is partly owing to the alæ spreading over the cheeks, by the custom of inserting bits of reed or sticks in the septum; their teeth are deformed by being filed to points, their lips are large." This tribe lives a few hundred miles from the west coast on the tributaries of the Congo river.

Of the Batoka, who live on the Zambesi river, the author remarks, they are generally very dark in color and very degraded and negro-like in appearance, while those who live on the highlands are frequently of the color of *milk and coffee*. All the Batoka tribe follow the custom of knocking out their upper front teeth at about the age of puberty. This is done by both sexes; the result is that the under teeth grow long and somewhat bent out, giving a hideous expression of countenance. The chief men have endeavored to destroy this unnatural practice, but have been as yet, unsuccessful. Of another tribe further down the Zambesi river we have the following: "Most of the men are muscular, have large ploughman hands. Their color is the same admixture, from very dark to light olive. Though all have thick lips and flat noses, only the more degraded of the population possess the ugly negro physiognomy. They mark themselves by a line of little cicatrices, each of which is a quarter of an inch long; they extend from the tip of the nose to the root of the hair on the forehead."

Among all the tribes encountered by Dr. Livingstone in his travels, the Makololo strikes the reader as the most worthy, possessed of the best feelings. It was the two chiefs of this tribe, Sebituane and Sekeletu, that rendered the author the most assistance in his progress through the continent. Sebituane, the father, died before the journey to the western coast was undertaken. Sekeletu succeeded to his authority and became the patron of the author in all his schemes. He thus describes Sekeletu: "I found Sekeletu, a young man of eighteen years of age, of that dark yellow or coffee and milk color, of which the Makololo are so proud, because it distinguishes

them considerably from the black tribes on the rivers. He is about five feet seven in height, and neither so good looking, nor of so much ability as his father was." As remarked in a previous connection, the Makololos are tall and well developed. They are not only great warriors but great conquerors, having conquered in the time of Sebituane, their former chief, many of the tribes in every direction from Lake Ngami. It was from the chief of this tribe that Dr. L. got an escort to accompany him to both sides of the continent, and no one can read the description given of the manner in which these natural men served their leader, their faithfulness and kindness to him under all the trying circumstances, without being very favorably impressed in regard to the tribe of which they are members. Their instrument in war is the spear, knowing little or nothing of the use of fire-arms.

We might extend remarks very much further on the physical characteristics of the different tribes, but examples in sufficient number have been given to enable the reader to form an opinion that will do for all the tribes in the newly discovered portions of the continent. Those tribes in the vicinity of the settlements made by the Dutch, Portugese and English, have long ago been described. We should like to have heard what the author has to say in regard to some physical peculiarities of the Hottentots, noticed by former travelers, and alluded to in standard works on anatomy.

Wherever European races have settled on the continent of Africa, they have mixed with the natives, and, as a consequence, a race of mulattoes have sprung up. The Portuguese who pioneered the settlement of the African continent south, usually went to the country for the purpose of making money. They seldom, it seems took wives with them. It was common for them to have families by native women. Dr. L. states that these half-caste Portugese have less energy than their fathers. "They are not physically equal to the European Portugese, but possess considerable ability;" and it is said that these half-castes in a few generations return to the black color again.

Within the British colony, at the cape, there are districts inhabited by the descendents of Dutch and French refugees, who had fled from religious persecution. Those living near the capital still preserve their resemblance to the middle class in English counties. After the emancipation of the Hottentot slaves by the British government, a certain class of the whole population fled into the interior

and thus dissolved their connection with the home government. These people now known as Boers, have been in the country for 200 years. "Two centuries," says Dr. L., of the South African climate have not had much effect upon the physical condition of the Boers. They are a shade darker, or rather rudier, than Europeans, and are never cadaverous looking, as descendents of Europeans are said to be elsewhere.

The *physique* of the natives is regarded as not only very perfect, but very powerful in resisting the encroachments of disease. The natives, near the western coast, and also those in the vicinity of the eastern coast are degraded by contact with European nations, who introduce among them intoxicating drinks, tobacco, etc. The tribes however in the interior, from their simplicity of diet and natural habits, are fine specimens of physical development. So powerful is the African constitution, that notwithstanding syphilis has been frequently introduced by Europeans, it crushes it out, thus preventing its spread.

With respect to the *intellectual* characteristics of the natives, the account given, although scattered, is pretty full. Nothing like science is known or cultivated. Says Dr. L.: "The human mind here is stagnant. * * No science has been developed, and but few questions are ever discussed except those that have an intimate connection with the wants of the stomach." Where the tribes have been directly or remotely in contact with Europeans, there seems to be more intelligence than among tribes of the interior. The Portuguese slaves, and the descendants of those who were in slavery formerly to the English, are much more knowing than those who are apparently of the same stock in the central portions of the continent. Intercourse however with white men has not benefitted the condition of the natives. Although improved in intellect, their vices are multiplied. Dr. L. remarks: "The intercourse which the natives have had with the white men does not seem to have much ameliorated their condition. A great number of persons are reported to lose their lives annually in different districts of Angola, by the cruel superstitions to which they are addicted, and the Portuguese authorities either know nothing of them or are unable to prevent their occurrence." In another connection Dr. L. says, that the native tribes think their own mode of living very superior to that of their white neighbors, and resist with pertinacity all innovations.

All Africans, it is said, believe in charms; and human sacrifices

on the death of chiefs, are universal north of 20° south latitude. "It is hard," says Dr. L. "to make them feel that shedding of human blood is a great crime; they must be conscious that it is wrong, but having been accustomed to blood-shed from infancy, they are remarkably callous to the enormity of the crime of destroying human life." This quotation is in reference to the Makololo tribe, the most noble tribe in our view, that Dr. L. describes. It is said of a certain tribe that they cut out the hearts of human beings to offer as sacrifices.

Intellect often shows its best parts in the formation of Governmental Institutions for the protection of life, liberty, etc. Throughout the continent explored, the natives are divided off into tribes—at the heads of which are the Chiefs. Usually the sovereignty is lodged in the hands of a single individual who has inherited it, or distinguished himself as a warrior, but occasionally it is exercised by two or more conjointly. Occasionally females succeed to supreme authority. The tribes are not so nomadic as Arabs. They usually settle down and claim a portion of territory as their own; through these territories they do not allow each other or strangers to pass without the levying of a tribute. There being no well settled boundary lines between the territories of different tribes, disputes arise; the troubles from this source, the recognition of the doctrine, to its fullest extent, that "*might gives right*," the want of consciousness that it is wrong to shed human blood, explain the circumstance that war is so universal, that it rises to the character of an institution. As a general rule the Chiefs are autocrats—autocrats in the severest sense of the term, they have control over the rights, property and lives of their subjects, and without having their authority called in question can sell their subjects as slaves, or call them up and sacrifice their lives. Dr. L. suggests, however, that the exercise of their authority in such respects has been exaggerated, that they do not often sell the members of their own tribes, but those taken in war. There are no written constitutions or statutes defining prerogatives, rights, etc. The whim or caprice of the Chief, at the moment, takes the place of these.

The character of the natives, as seen in their arts, is sketched in different places in the volume before us. We have seen that the hoe is the only instrument of agriculture; ploughs and waggons are unknown to the tribes in the interior. "The acme of the Bechuanas, (a tribe communicating on the south with the Cape Colony) is the

possession of cattle and a wagon. It is remarkable that although these latter require frequent repairs none of the Bechuanas have ever learned to mend them. Forges and tools have been at their service and teachers willing to learn them, but beyond putting together a camp-stool no effort has ever been made to acquire a knowledge of the trades. They observe a missionary at work until they observe whether a tire is welded or not, and then pronounce upon its merits with great emphasis, but there their ambition rests satisfied." Of the Makololo, it is said, some make wooden bowls with very nice lids, and since the idea of camp-stools have entered their minds they have shown great taste in the different forms given to the legs of these pieces of furniture.

On the *Architecture* of the inhabitants we extract the following: "The Makololo huts are generally clean while those of the Makalala are infested with vermin. The cleanliness of the former is owing to the habit of frequently smearing the floor with a plaster composed of cow-dung and earth. If we slept in the tent in some villages the mice ran over our faces and disturbed our sleep, or hungry, prowling dogs would eat our shoes and leave only the soles. When they were guilty of this and other misdemeanors we got the loan of a hut. The best sort of Makololo huts, consists of three circular walls, with small holes as doors, each similar to that in a dog-house, and it is necessary to bend down the body to get in even when on all-fours. The roof is formed of reeds or straight sticks, in shape like a Chinaman's hat, bound firmly together with circular bands, which are lashed with the strong inner bark of the mimosa-tree. When all is prepared except the thatch, it is lifted on the circular wall, the stem resting on a circle of poles, between each of which the third wall is built. The roof is thatched with fine grass and sewed with the same materials as the lashings, and as it projects far beyond the walls and reaches to within four-feet of the ground, the shade is the best to be found in this country. The huts are very cool in the hottest day, but are close and deficient in ventilation by night."

Articles of food that require to be ground are operated on by the women, with a pestle and mortar. The Makololo tribe raise maize, which the women pound into meal in wooden mortars. At several places in the interior Dr. L. noticed some rude efforts at sculpture, the human face cut on pieces of wood; some of the tribes near to

the coast make baskets, while others do something in pottery and iron. Dr. L., however, does not confirm the reports of the existence of tribes in the interior of the continent far advanced in the knowledge of the arts. His account when taken all together makes an impression the very reverse. The deeper the continent is penetrated the less knowledge the natives have of the most rude arts.

ÆSTHETICS, RELIGION, ETC.—With reference to many of the domestic habits of the tribes, the accounts of Dr Livingstone are very satisfactory; the dress of the natives he could not well avoid observing. Both males and females he found in a state of comparative nudity. Most of them wear something on the shoulders and something attached before and behind to a string tied around the waist. Among the Batokas, the women clothe themselves better than the Balonda, but the men go *in puris naturalibus*, they walk about without the smallest shame. They have even lost the tradition of the “fig-leaf.” “I asked a fine large bodied old man if he did not think it would be better to adopt a little covering. He looked with a pitying leer, and laughed with surprise at my thinking him at all indecent, he evidently considered himself above all such weak superstition.” The following is an account of the dress of an African Queen living on the Leeba river, and having, as several instances related of her, go to show, a great influence over her people, the Balonda: “Manenko was a tall, strapping woman about twenty, distinguished by a profusion of ornaments and medicines hung around her person; the latter are supposed to act as charms. Her body was smeared all over with a mixture of fat and red ocre as a protection against the weather, a necessary precaution, for like most of the Balonda ladies she was otherwise in a state of frightful nudity. This was not for the want of clothing for being a Chief she might have been as well clad as any of her subjects, but from her peculiar ideas of elegance in dress.”

In the valley of the Lowemba the women were found almost entirely naked, “their gowns being a patch of cloth frightfully narrow with no flounces, and nothing could exceed the eagerness with which they proposed to purchase strips of calico.” Most of the tribes that live near the settlements, made by Europeans, have had their notions changed with reference to dress. In a climate such as is experienced in the route of Dr. L. across the continent, dress is simply unnecessary. The rays of the sun make no impression on the skin of the native, however much exposed to them. By natural men it seems

things are judged of by their utility. A kind of dress that involves labor and expense is not likely to be held in much esteem. On the Eastern coast, in the Portuguese possessions the small pox got introduced among the slave population some years since, and it was observed that the mortality was the least among the negroes who were in the habit of going naked. If this be true, dress is not even hygienic in Africa. For ornamenting the body, after some fashion or other, Dr. L. noticed almost every where a taste in both sexes. Males often embarrass their walking by the number and size of the rings inserted into the skin about the ankles, while the females often maim themselves and distort their appearance in obedience to the same passion.

RELIGION.—From what has been said of the amount of intelligence, the governmental regulations and the inter-minable wars, it could not be expected that any thing approaching a reasonable kind of worship exists in the interior of the country. In only a few localities is there any thing to be found indicating the presence of the rudest forms of idolatry. Paganism, nor Mahomedanism has taken root in the native mind. Many tribes not only never heard, it is said, of the names of those who have been conspicuous in bringing to the attention of mankind the religious systems which have appeared in all ages of the world, but they had never heard until they saw Dr. L. of the existence of the Creator. Among other tribes there seemed to be some idea of a future state, the immortality of the soul, etc. Every where, however, superstition the most degraded and bloody prevails. Speaking of the habits of the Barotse Dr. L. says: "When a chief dies a number of his servants are slaughtered with him to form his company in the other world. * * * This and other customs show them to be genuine negroes, though neither they nor the Balonda resemble clearly the typical form of that people." Leaving the Barotse country, Dr. L. continues: "As we go north the people become more bloodily superstitious. A notion very prevalent is, that after death, the spirit either enters into the body of an inferior animal, or tarries somewhere in the vicinity. To these disembodied spirits, under the name of Barimo, prayers are offered." Whenever Dr. L. undertook to instruct the natives on religious matters he was heard with respect and attention. He complains however, that the effect produced was not very lasting. Sins would be acknowledged, but the penitent would go immediately and sin again. Civilization of the natives—a knowledge of letters and

figures, of *arts* and *sciences*, of the institutions under which enlightened people live, must in the estimation of Dr. Livingstone take precedence of all attempts to teach the Gospel. The axe, saw, hammer and plough, the spelling book and the arithmetic, are of more importance in the hands of the missionary just now than the Bible.

DIETETICS.—We have no time to do any thing more than merely to allude to the diet of the people of Africa. So far as it was observed by Dr. L., the natives are neither herbivorous or carnivorous, but like the rest of mankind, omnivorous. Although furnished by Nature with quite a profusion of articles of diet in the vegetable line, the natives partake largely of animal food. The country abounds in a great variety of herbivorous animals, quadrupeds, birds, fish, etc., and these are hunted and slaughtered for food. Dr. L. found, in his own case, that in order to stand the fatigue and labor incident to travel, animal food was absolutely required. He had every reason to believe that the same thing was true with reference to the natives, and hence their universal custom of consuming it when it could be obtained. In the centre of the continent there was no salt, the natives not being accustomed to use salt. While here Dr. L. observed that the use of animal food served in the place of salt. When he and the natives could get plenty of animal food they did not feel the want of salt.

MEDICINE IN SOUTH AFRICA.—Our principal object in looking through the volume before us has been to see the state of Medicine among the natives—what conceptions they have of the diseases to which “flesh is heir,” and what they know of remedies—how they use them, etc.

It will be noticed by any one who reads the descriptions given of the tribes, that they, as a rule, enjoy vigorous, robust health. In some districts, it is true, the physical powers are dwarfed from malaria, but such are rather the exceptions. So tenacious are the people of life, that it is said by Dr. L. that no tribe has ever been destroyed by either war or disease. Malignant diseases, such as syphilis, do not get a foot-hold, but, as before remarked, are crushed out by the forces of the physical constitution. Dwarfs are scarce, so are physical deformities. Dr. L. saw but one albino in his travels. Diseases that are connected with imperfect or effeminate powers of the assimilative functions, such as consumption, scrofula, and cancer, very seldom make their appearance. Stone in the bladder and cholera are unknown. The vigorous constitution, and the compara-

tive exemption from diseases, Dr. L. attributes to simplicity of diet and constant exposure of the surface of the body to the atmosphere.

The diseases of Africans proper seem to be very few. Small-pox and measles passed through the country a number of years since, and committed great ravages. Epidemics, however, are mostly confined to the coast population, and seldom travel inland. From what has been said of the topography and hydrography of the country, we are enabled to understand what of necessity must be the staple diseases. The soil of the coasts, at Londa on the West, and Kilimane on the East, are made up of a large proportion of vegetable matter in a state of decomposition. This is true also of the central basin, and of the valleys of the many noble rivers of the interior. Such localities give rise to fever, visceral inflammations, etc. The Makololo tribe occupy the central basin. "The fever here," says Dr. Livingstone, "is a drawback to this otherwise important missionary field. The great humidity produced by heavy rains and inundations, the exuberent vegetation caused by fervid heat in rich, moist soil, and the prodigious amount of decaying vegetable matter, annually exposed after inundations to the rays of a torrid sun, with a flat surface often covered by forests through which the winds cannot pass, all combine to render the climate far from salubrious for any portion of the human family. But the fever thus caused and rendered virulent, is almost the only disease prevalent in it." The Portuguese and other Europeans suffer from fever on the West coast. Some places have been abandoned on account of it. It is almost needless to say that Kilimane is unhealthy. The immense delta of the Zambesi gives out malaria in a very concentrated form. "A man of plethoric habit is sure to get fever, and concerning a stout person one may hear the remark, 'Ah he will not live long; he is sure to die.' At the mouth of the Zambesi, a Hamburg vessel was lost a short time before Dr. L. arrived at the place. The men who composed the crew were saved from a watery grave; but every one of them, except the captain, died with fever, notwithstanding they were more regular in their habits than English sailors. "They felt *'out of sorts'* only, but gradually became pale, bloodless and emaciated, then weaker and weaker, till at last they sank like oxen bitten by tsetse." The captain was saved by the use of quinine administered by Dr. L., without his knowledge, for he was prejudiced against its use. Some idea may be formed of the influence of the

climate on the white race by what Dr. L. suffered. He states that he had the African fever twenty-seven times ! !

The descriptions given of this *African fever* lead to the supposition that it is closely allied to what we call in this country bilious remittent and intermittent fevers. It may, and no doubt does, differ on account of the climatic influences under which it makes its appearance, but its essential phenomena seem to be much like what we have in our country as the result of malaria. Dr. L. says that repeated attacks of it enlarge the spleen. Besides, quinine he found to be a remedy for it. He cured himself with this drug promptly ; he cured the natives also with it.

The office of the doctor in Africa is in the hands of a class who inherit it from their fathers and grand fathers. Those who do not come into the profession in this way are regarded as *quacks*. The regular doctors, it is said, by inheriting the observations of their fathers and closely noticing things themselves, acquire some degree of skill. "The *surgical knowledge*," observes Dr. L., "of the native doctors is rather at a low ebb. No one ever attempted to remove a tumor except by external applications. Those with which the natives are mostly affected are fatty tumors, and as they all have the *vis medicatrix naturae* in remarkable activity I safely removed an immense number. In illustration of their want of surgical knowledge may be mentioned the case of a man who had a tumor the size of a child's head. This was situated on the nape of the neck, and prevented his walking straight. He applied to his chief, and he got some famous strange doctor from the East coast to cure him. He and his assistants attempted to dissolve it by kindling on it a little fire made of a few small pieces of medicinal roots. * * Both men and women submit to an operation without wincing, or any of that shouting which caused young students to faint in the operating theatre. The women pride themselves on their ability to bear pain. * * A man scorns to shed tears."

"Their knowledge of *obstetrics* is equally unscientific, and a medical man going near a woman at her confinement was regarded as being very much out of place. The poor creatures are often placed in a little hut built for the purpose, and left to themselves without any assistance whatever, and the number of umbilical herniæ which are met with in consequence is very great." Dr. L. practiced as an accoucheur only in difficult cases, and thus secured the good will and esteem of the people. Having in a certain instance cured a case

of sterility, he was beset afterwards with numerous applications for the "Child medicine." One would say, "I am getting old; you see here and there gray hairs on my head, and I have no child; you know how Bechuanas (a certain tribe) cast their old wives away; what can I do? I have no child to bring water to me."

The remedies used by the natives are not very numerous; still they have something or other by which they fulfill quite a variety of indications. Cupping for inflammatory diseases is often resorted to by certain tribes. *Goho* is emetic and purgative; it is not so much used as a remedy for sickness, as it is as a test of guilt. Persons accused of witchcraft, theft or other heinous offenses, are required to take a strong decoction of this substance, and if they survive its effects, they are regarded as innocent; it is called the "*Ordeal*" medicine, and from what Dr. L. says of its properties and the number of persons who are annually destroyed by it, it must be very poisonous in large doses. The accused, conscious of being innocent, approach the Ordeal with confidence. *Shinkando*, a very virulent poison, is used by other tribes in their Ordeal. *Mupakasi* is used as an antidote to poisons. *Muhundukundu* is a febrifuge prescribed in decoction in the same way as quinine; it grows plentifully in the country, and cures intermittent fever. *Kakumati* is also a febrifuge, and used in intermittent fever. *Eskinenia* is used in croup and sore throat. *Itaka* is used to produce diaphoresis in fever; this is brought into the country by the Arabs and sold to the natives at Kilimane. *Mutuva* is used for coughs, cold, etc. *Mudama* is a stringent vermifuge. There are some tribes, north of the Cape colony, on the Leeba and Lecambye rivers, far in the interior, among whom small pox appeared some thirty years ago. "Singularly enough the people used inoculation for this disease, and in one village where they seem to have chosen a malignant case from which to inoculate with, nearly the whole village was cut off.

CIRCUMCISION.—"All the Bechuana and Caffre tribes, south of the Zambesi, practice circumcision, but the rites observed are carefully concealed. The initiated alone can approach, but in this town (Bamangoato) I was once a spectator of the second part of the ceremony of the circumcision called '*sechu*' Just at the dawn of day a row of boys of nearly fourteen years of age stood naked in the katla, each having a pair of sandals as shields on his hands. Facing them stood the men of the town in a similar state of nudity, all armed with long thin wands of a tough, strong, supple bush, called moret-

la, and engaged in a dance named koha, in which questions are put to the boys as, 'Will you guard the Chief well? Will you herd the cattle well?' and while the latter give an affirmative response, the men rush forward to them, and each aims a full-weight blow at the back of one of the boys. Shielding himself with the sandals above his head, he causes the supple wand to descend and bend into his back, and every stroke inflicted thus makes the blood squirt out of a wound a foot or eighteen inches long. At the end of the dance, the boys' backs are seamed with wounds and weals, the scars of which remain through life. This is intended to harden the young soldiers and prepare them for the rank of men. After this ceremony, and after killing a rhinoceros, they may marry a wife."

An instrument with which the Lion is hunted, and also used in war, is the *poisoned arrow*. Dr. L. was shown the poison used. "It is the entrails of a caterpillar, called N'gwa, half an inch long. They squeeze out these and place them all around the bottom of the barb, and allow the poison to dry in the sun. They are very careful to cleanse the nails after using the poison as a small portion introduced into a scratch acts like morbid matter in dissecting wounds." The Bushmen have the reputation of curing the wounds of the poison. They administer the caterpillar itself in combination with fat. Another poison, used on the arrows, is the milky juice of the *Euphorbia*. When a quantity of this juice is mixed with the water of a pond, a whole herd of Zebras will fall dead after drinking it before they have moved away two miles. On oxen and man it acts as a drastic purgative.

The practice of these Bushmen, who are about the most degraded tribe in Africa, looks like Homeopathy—caterpillar the disease, caterpillar the remedy. Poor Hahnemann, it seems, has even been anticipated by the natives of Africa.—"*nil novi sub sole*."

From this brief review of the state of medicine it seems that the natives, either by intuition or experiment, recognize in the substances with which they are surrounded the means of alleviating distress and curing disease. They are not "Expectant" practitioners, believing in Nature as competent to do all the work—but without, as there is reason to believe, knowing any thing correctly of the nature of morbid actions, they use medicines freely and of powerful properties. By accident we discovered the most important article of the *materia medica*. They likely discovered the remedy for

African fever in the same way. How inoculation for small-pox become known, and who introduced *circumcision* there are no means of ascertaining. After all, medicine in South Africa seems not behind any thing else. Without a knowledge of letters or figures, without agriculture or architecture, without being even acquainted with their own ages, the natives have managed to find out something in regard to the substances that will cure the diseases with which they are most frequently afflicted.

It is refreshing to get hold of a book such as the one before us. It increases our knowledge of the Earth and of its inhabitants. It may be said that there is little in it calculated for the medical profession. This remark ought not be made. Whatever pertains to natural history has a bearing directly or remotely on the medical profession. Every portion of the Earth—its geography, hydrography, geology, botany and zoology, ought to interest the medical man; for it is only in the contemplation of things on an enlarged scale, and with reference to circumstances, that correct notions can be formed. A country by these travels is opened up of great extent, having a conformation, and possessed of agricultural resources, that must strike the uninitiated with perfect surprise. Upon it herds of tropical animals, in numbers that stagger credulity, feed upon a vegetation which for luxuriance has no parallel upon the earth. Upon the country the Sun never ceases to bend his warm and genial rays—no winter scarcely, but an eternal spring. Thus circumstanced we have a race of mankind, marked by the peculiarities of the circumstances with which they are surrounded. A dark skin, thick lips, prognathous skull, and elongation of the os calcis, distinguish them from other races. They wear no clothing, because they need none; they give themselves but little trouble about art or agriculture, because the earth produces, without being teased to it, an abundance of food; they have not science enough to reckon their own ages or the distances from place to place, but measure time by the generations that have lived; they cultivate war with each other as an institution, and their greatest ambition is to be good warriors; they are superstitious in regard to every thing they can not readily comprehend; they cannot be said to be religious, for no efforts in this line have been successful; they have their diseases, medical and surgical, and they have their doctors to cure them; their moral sense does not prevent them from murdering each other, from holding each other as slaves, or from selling each other to slave-traders;

they have good feelings toward white men who go among them for the purpose of ameliorating their condition; they were charmed with Dr. L. because they regarded him as a wise, good man, who came among them with good intentions.

The success of Dr. L. as a traveler in Africa we regard as being mostly due to the circumstance that he secured, at the start, an escort of able bodied men from the chief of the Makololo tribe. The many times his life was endangered by the tribes through whose territory he passed, and who knew nothing of his objects, renders it morally certain that without this escort he would have shared the same fate as Mungo Park on the Niger. Besides, it was his almost universal practice when entering the territory of the tribes, from whom hostility were apprehended, to send forward a conciliatory message to the chiefs, thus testing in advance the practicability of progress.

Throughout the volume the impression is made, that S. Africa is capable of receiving the impress of European Civilization. This involves two questions—the capability of the natives, and the character of the climate. Without any kind of doubt the natives are capable of intellectual and moral improvement. Whether, however, they can be sufficiently elevated, with their circumstances, to appreciate a high order of civilization is among the problems that have yet to be solved. Were they compelled to work one-half of the year to get food, and raiment for the other half, the probabilities in their favor would be increased. The climate is mortiferous to the white race. This seems to be rendered certain by all the experiments made. The Author suffered in his own person twenty-seven attacks of fever. The Portuguese colonies at Londa, and in Mozambique, are sickly after having been in existence for centuries. Europeans as we have seen, in the case of the Hamburg vessel wrecked near Kilamane on the East Coast, die in being detained for a short time there. The labor, therefore, of getting up a civilization for this part of Africa and of carrying it on must be performed by Africans themselves. The presence of the rite of circumcision among certain tribes in Mozambique shows that the Jews have succeeded to some extent with their religion. The rite, however, seems so distorted now that it would not likely be acknowledged as valid by an Israelite.

ART. II.—*Case of Hæmaturia, resulting in Uraemi and Death.* By J. HOUSTON, Jamestown, Ohio.

I was called Sunday, A. M., July 19, 1857, to see E. W——m, aged fifty years, of nervo-billious temperament; found him suffering acute pain in the right lumbar region, extending along the course of the ureter; pain continuous, pulse one hundred, small and hard, frequent vomiting, tongue dry and slightly red at the edges, constant thirst, profuse perspiration of the face and chest, with cold extremities. The urine of a dark red color perfectly neutral, imparting a red stain to white linen, and on the application of heat a coagulum was formed. The quantity of the discharge varied but little from a healthy standard. These symptoms continued without any remission for twenty-four hours, when the pain subsided the stomach became more quiet, the thirst less urgent, the pulse reduced to ninety, and a more even and natural temperature pervaded the whole surface. There remained a slight fulness and tenderness of the affected side, extending from the spine to the regio pubis, rendering an effort to assume either the erect or recumbent position exceedingly painful. This tenderness continued to gradually subside for three days, after which time it attracted no further attention.

Thursday 23. The patient expressed himself as feeling quite comfortable; has a good appetite, but occasionally vomits after taking nourishment; bowels regular; continued to walk about his room up to Sunday 26, when he became drowsy and listless, slight spasmodic contractions of the muscles of the face was observed, his respiration abnormally slow, (twelve inspirations to the minute,) pulse ninety; urine unchanged in appearance, and on examination under the microscope was found to contain a large proportion of blood corpuscles. This you will remember, was his condition on Monday 27th,

Tuesday 28. No change in the symptoms worthy of notice.

Wednesday 29, 4 o'clock A. M. Suddenly seized with a most terrific convulsion, followed by four hours of profound coma; this was again succeeded by an exhilaration of spirits, manifested by an inordinate desire to converse, and a hurried anxiety to close up his business matters, being fully impressed of his approaching dissolution, and at the same time retaining full possession of his intellectual fac-

ulties. The spasms continued to recur at intervals of from nine to twelve hours, up to Friday 31st, each spasm followed by profound coma of from two to six hours duration, during which time he could not be aroused; his breathing was stertorous and still more prolonged from three to six inspirations to the minute, and frequently forty seconds would elapse between the respiratory movements. After a period varying as before mentioned, he would suddenly arouse and after a few incoherent remarks become perfectly rational, and converse as freely and cheerfully as he had formerly done; these extremes of depression and excitement of the nervous centres invariably succeeded each other, during the continuance of the spasms the discharge from the kidney much diminished. As to follow the history of the case from day to day, would be a repetition. Suffice it to say, that from Friday, 31 P. M., there was frequent spasmodic contractions of some of the muscles of voluntary motion, but no general spasm. The urine lost its dark red color, but still contained blood corpuscles in great profusion, and numerous casts of tubes was beautifully displayed under the microscope, the coma become more constant, up to Tuesday, August 4, when he died.

To remark upon this case, deprived as we are, of those great and important land marks that a post mortem inspection affords, would be mere speculation, at least so far as the pathological characters are concerned.

Did the hemorrhage proceed from the kidney? We are of the opinion that the symptoms favor an affirmative answer to this inquiry; first from the character and appearance of the discharge, it being a perfect mixture or ferment of blood and urine of a dark red color, the whole discharge presenting a uniform appearance while flowing from the urethra, undergoing no change in this respect, after remaining quiet.

Another but a negative reason for this opinion is the absence of irritation in the other parts of the system of organs, endowed as they are with a higher degree of sensibility, and occupying a more superficial position than the kidneys.

Whether the hemorrhage was a primary affection, or the result of an organic disease, or proceeded from a calculus, nothing I presume but a dissection can reveal.

Taking the history and symptoms of this case into consideration, the conclusion seems fair that death resulted from a deficient elimination of urea from the blood. Yet when we take into account the amount of the discharge from the kidneys (a portion of which was undoubtedly urine,) it would seem that there was not a sufficient relation between the violence of the symptoms, and the amount of urine retained in the blood, to account for the former. But by adopting the theory, that in uræmia a new substance is formed at the expense of the normal constituents of the urine, which is the real poisonous agent, the difficulty vanishes; but finally to what extent was the retention of urea in the blood influenced by the loss of vigor consequent upon the loss of blood?

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

From the N. O. Medical and Surgical Journal.

Influence of Anatomy on the March of Civilization : By J. C. NORTT, M. D., Professor of Anatomy in the University of Louisiana.

The science of medicine is so widely separated from the range of thought of the great mass of mankind, (even of those who have been liberally educated) that few, out of our profession, have any proper appreciation of the intimate connection which exists between its various branches and other departments of human knowledge, and a still smaller number have any idea of the immense influence the medical profession has exercised on the march of civilization. Could the people and their legislators be made fully sensible of the truths I propose to set forth, they would not hesitate to award to medical colleges, the credit which they justly merit. Few States in the Union have fostered these institutions with such liberal hands as that of Louisiana, and yet her people are already feeling benefits which will increase from year to year. But my object now is not simply to show that we are elevating the standard of medical education from year to year, and supplying the population with more intelligent and more skilful physicians, but that while we place the science of medicine on a more elevated platform, we, at the same time, elevate all other departments of knowledge with it. As my

space will not permit allusion to other departments of medical education, as chemistry, botany, etc., I shall confine my illustrations simply to that of Anatomy, to which too little importance is attached by those outside of our profession, and I might add with truth, by too many in the profession.

So legitimately are all the departments of human knowledge connected together, that it becomes very difficult to estimate the full value of any one, or its influence on others, however disconnected they may seem. It may, however, be safely asserted that there exists no science, or no department of knowledge so isolated, that it does not receive light direct or indirect from others.

It may be laid down, as an axiom, that *all knowledge is derived from the study of nature*. The mind of man comes into the world a blank, and would remain so were it cut off from the observation and study of objects of nature. Locke, in his immortal work on the understanding was the first to develop fully the great truth that all knowledge comes through our senses, for though the mind in its progress may develop certain abstract ideas, even these, if closely analyzed, will be found to have their ground work in ideas received through the senses. Imagine a man who had never *seen* an object in nature—who had never heard a sound—who had never felt, smelt or tasted, and ask what abstract ideas his mind could originate, that would possess form or value. In fact, all our knowledge is the result of the action of our minds on materials derived from observation of the objects and phenomena of the external world. The boasted mind of man can *invent* nothing but *falsehood*—all science—*all* knowledge is but the discovery of facts of nature and their relations. What, for example, is the noble science of astronomy? It is no *invention* of man. The master minds of Newton, Kepler, Laplace, Herschel, Leverier and others, have but *discovered* a few of the laws which have governed the celestial bodies for millions of years. So with mathematics, natural philosophy, botany, zoology, geology, chemistry, anatomy, etc.

Every proposition in Euclid is based on a law of nature. It was not Euclid that made the right angle of a triangle equal to the sum of the other two angles—or the square of the hypotenuse equal to the sum of the squares of the other two sides. When the chemist tells us that all substances in nature may be resolved into some sixty simple elements—that these may be recombined to form well known inorganic compounds; and that they combine in certain definite proportions, he only proclaims *discoveries* of beautiful laws of nature.

How stands the case with our own science of medicine? What are we daily striving at? Is it not simply to extend our *discoveries*? We seek with the dissecting knife and microscope to extend our knowledge of the structure of the human body. We seek to extend our knowledge of its functions, and the action of morbid causes upon it; and we seek in the vegetable and mineral kingdoms for remedies to heal its maladies. Every new splint the surgeon shapes, or new instrument he brings to light, is but an appliance to carry out a mechanical principle which exists in nature.

We may then, I think, fairly assume the truth of the two propositions thus briefly alluded to : First, That the mind of man commences its existence in darkness, and would remain so, were it not for the perceptions received through the five senses, which places us in relation with the external world. Second, All our knowledge is derived from the observation of nature, and the operation of our minds upon ideas so obtained.

If, then, it be true that the mind of man is enlightened and expanded by the study of nature, it is evident that the wide field covered by the science of anatomy must yield the richest of all harvests, and one well worthy of the great minds of Cuvier, Palas, Blainville, Geoffroy, St. Hilaire, Agassiz, John Hunter, Owen, Leidy, and many others, who have not only widely extended the horizon of speculative, but of useful knowledge.

You must not commit the grave error of thinking that the science of anatomy belongs to the doctor's shop alone. On the contrary, anatomy in its more general and philosophic acceptation, is the *Science of Organization*, considered in the different living beings, from the simplest zoophyte up to man. The series of organized beings, forms an immense chain, the extent of which the accumulated labors of ages has not been able to measure. The air, the earth, the mighty deep are all populated by living beings, which, by their infinite variety of organization, form and size, attest the inexhaustible fecundity of nature. Thus while among the mammifers life is maintained by the most complicated apparatus, we find at the other end of the scale, animals, like the hydra, polyps, etc., which have been alternately ranged with animals and vegetables. Nor are the varieties in size less striking, ranging from the mammoth or whale down to the animalculæ, a million of which the microscope discovers in a single drop of water. Even the animalculæ, so infinitely small to our senses, may in turn become gigantic, compared to others yet to be discovered with more perfect instruments.

You at once perceive then that anatomy is the most vast of all sciences—far too vast for any one mind. Hence the necessity of dividing it up into many departments, any one of which may fully occupy the lifetime of one man.

We shall proceed to point out in succession, the connection between anatomy and a few of the more prominent departments of human knowledge, viz : mental philosophy, fine arts, zoology, geology, jurisprudence, political economy, ethnology, natural and revealed religion, etc.

1st. Let us inquire what connection exists between anatomy and mental philosophy ? Science is one thing—religion is another, and should in the present sensitive state of the public mind, be kept as much apart as possible, and it is not our desire here to make any allusion to the soul, or immortal part of man ; but the *mind*, the *intellectual powers*, are clearly functions of that organ called the brain, and we should commence our study of the mind, by the *anatomical* structure of the organ from which it emanates. The mind is

almost null in the new born infant—it grows and gains strength on to mature age—it is deranged by disease of the brain, and is annihilated by compression and other injuries. Every thing, then, proves that its intellectual functions depend upon the integrity of the anatomical structure of the *brain*.

The metaphysician who attempts to investigate thought, and to decompose the complicated operations of the understanding, can make no solid progress without laying his ground work in the structure, and functions of the various parts of the brain, organs of sense, and spinal system. The leading mental philosophers of the past age were fully sensible of the importance of anatomy, and Descartes, Locke, Malebranche, Condillac and others, were versed in the anatomy and took it as their point of departure. But it is to the labors of Gall, and those who have followed in his footsteps, that we are mainly indebted for our advance in mental philosophy. While on the one hand, I do not mean to say that the present state of our knowledge justifies us in mapping out the faculties of the brain on its surface, as Gall has done, still the merit cannot be denied him, of having given a new impetus and better direction to the study of mental philosophy. He has at least clearly proven, that certain grand divisions of the brain, preside over certain groups of functions—the anterior—the posterior parts of the brain—the cerebellum—and the medulla oblongata; although their functions are not all clearly defined, yet differ widely in those they perform. And not less important are the great discoveries of Sir Charles Bell, of the functions of the spinal marrow, and its system of nerves. A familiar illustration of all this may be given in the organs of sense—the eye—the ear—olfactory organ—the tongue, have each a nerve leading to and connected with a point of the brain, and each has a distinct function to perform; did the optic nerve connect with the brain at the point of origin of the auditory nerve, there would be no vision, and *vice versa* of the auditory nerve; it is clear, then, that one point of the brain gives sight, another hearing, another smell, another taste, etc., showing clearly that the brain is a compound organ, having many functions to perform.

And here comes in the great science of comparative anatomy, to show how indispensable it is to the proper understanding of man, and to illustrate the remark of Buffon, that if “no other animal than man had lived, we should know much less of man than we do.”

In fact, most of our knowledge of the functions of the nervous system of man, has been derived from the dissection of animals. Now man belongs to that division of the animal kingdom to which the term *vertebrata* has been assigned by the naturalists. The leading characteristic of this division is found in the existence of a brain, spinal marrow, and vertebral column. The *vertebrata* have been subdivided into mammifers, birds, reptiles and fishes, all of whom have a brain and spinal marrow.

Anatomy teaches us that man possesses the most complicated and perfect nervous system known, and by following the chain on down-

wards through the mammalia, birds, reptiles and fishes, we find that the brain becomes smaller and less perfect, one organ after another is diminished or left out, until in the lowest links but little brain and little intelligence is left. If we pass on from the *Vertebrata*, through the three remaining divisions of the animal kingdom, viz : *Articulata*, the *Mollusca*, and the *Radiata*, we shall find that not only the brain, but the entire nervous system disappear, and even the special organs of sense.

It is by anatomy, then, that the mental philosopher has been able to study and analyse the structure and functions of the nervous system. He can go back and commence almost at the worm, and by following on the chain upwards through fishes, reptiles, insects, and warm-blooded animals, discover that one organ after another is added, each of which has its special use, until he reaches such structures as the brains of Napoleon, Newton and Locke.

I have pointed out to you one of the great results of comparative anatomy. It is the ground work of mental philosophy, and no intellect, however gigantic, could ever trace the connection between mind and matter, without the dissecting knife and microscope.

Even sculpture and painting, those twin arts, that so charm the eye, refine the taste, and expand the mind of man, are not less indebted to the aid of anatomy for the high perfection to which they have attained in our day. A certain amount of anatomical instruction is now considered as essential in every school of design. What excellence could the historical painter attain, without a knowledge of those muscles of the face which give expression to the various passions and emotions of the mind ; or of those of the limbs and trunk which give expression to the motions and attitudes of living man ? The most beautiful object in nature to us, is the human form divine ; who can gaze upon the Apollo or the Venus, the Laocoon, or the dying Gladiator, without the most pleasurable emotion ; and they give us pleasure because they are true to nature. It may be said that the sculptors who produced these unrivalled works of art, lived in a day when dissections were not tolerated, and anatomy was in its infancy. In reply, we say, that we do not know with certainty even the names of many of the artists, and therefore can know little of their knowledge of anatomy ; but we can say, whether they did or did not dissect, they studied the external anatomy of man with a fidelity which never can be surpassed ; the swell and outline of every muscle, the eminences and depressions of every bone, the motions of every joint, every trivial furrow, every superficial blood vessel, or tendon, the irregularities of the skull, etc., were all depicted with a fidelity which can never be excelled. No one, then, will deny that anatomy is an essential element in the education of the sculptor and painter.

Need I now address myself to the intelligent jurist and ask him to turn to Paris and Fontblanque, Beck, Taylor, and other works on Medical Jurisprudence, and say how much he owes to the labor of the anatomist, to say nothing of medical chemistry ? How often is

the anatomist called before the coroner, or into courts of justice to determine a point of life and death. Questions of infanticide have often to be decided by the testimony of the medical man alone; in cases of death arising from blows, wounds, etc., it is the anatomist who is to decide, and upon his testimony alone, hangs, in many instances, the lives of human beings, and the momentous decisions of damning guilt or of innocence. But it would be almost an insult to intelligence to dwell upon a point so palpable as this.

Where shall I begin, or where shall I end, when I undertake to tell you of the connection between anatomy and the vast science of *Zoology*? What is meant by the term *Zoology*? It covers the entire physical history of every living being, and every fossil remain, from the animalculæ or zoöpyhte up to the most gigantic animal forms. Zoology, then, must necessarily have comparative anatomy for its ground work. Comparative anatomy not only examines into the minute structure of each organized species, but it is its province to compare them together, to study their affinities or discordances, to arrange them into groups having anatomical relation, and to open to our view that stupendous plan by which an All-wise Providence has populated and repopulated our globe. We have only to turn back to the works of Buffon to prove how indispensable is anatomy to the science of zoology. Buffon was truly a great and useful man in his way, and to the charm which his genius threw around Natural History, are we greatly indebted for the impetus given to its study during the past century. No man was ever more deeply impressed with the grandeur and beauty of Nature's works; no man ever searched more diligently for landmarks by which to classify and arrange the immense mass of material over which his mind wandered; and never did gorgeous and attractive style do more in awakening the attention of others to the study of Nature's works; but after all there was something wanting to give solidity and durability to his plan, and to elevate Natural History to the level of a true science. It was the want of *anatomy*.

When the naturalist of our day looks over the fifty volumes of Buffon, he marvels at the extent of his labor; is fascinated with his beautiful descriptions of the external forms of animals, their habits, instincts, geographical distribution, etc.; but when we seek for those solid materials out of which to construct an exact science, we turn to the labors of Daubenton, the modest, but gifted collaborateur of Buffon, who has left us dissections of nearly two hundred species of animals, so full and accurate as to leave nothing to be desired, as far as these details extended, but Daubenton attempted no complete classification of the animal kingdom.

Comparative anatomy, by leading us to an exact appreciation of the organic resemblances and differences presented by all animals, is now regarded as the sole solid basis of their classification.

It is to Cuvier that we are indebted for the first truly scientific classification of the animal kingdom, which is founded on the organization, and the principle of natural anatomical affinities. It follows

the descending order, beginning with the most complex type at the summit, and placing the most simple at the bottom of the scale. He divides all known animals into two grand anatomical divisions, viz: the *Vertebrata*, or those having a spinal column, and second, the *Invertebrata*, or those having no spinal column. The latter are again divided into *Articulata*, *Mollusca*, and *Radiata*, and the whole animal kingdom is thus divided into four grand departments, which are based entirely on anatomical distinctions. If we go on down through the orders, classes, families, generations and species, we find that anatomy is still our guide, and the only means by which we can surely place each animal. It is only when well marked anatomical distinctions cease, that our doubts and disputes commence.

When, for example, you place beside each other, a bear and a dog, you discover anatomical differences which at once point to specific difference and distinct origin. But when you place beside each other the dog, wolf, fox and jackal, though they have some external differences, their anatomical structure is identical—they have the same number and form of teeth, the same number and form of bones in the skeleton, and the same internal organs; but, the comparative anatomist requires but a single bone or tooth of the bear to say that it is not a dog, or a wolf, or deer—but a bear, and nothing but a bear.

If the question be asked, “Are all horses of one species or origin?—are all dogs—all cattle—all our domestic sheep and goats of one species—nay, more, are all the races of men of one species? We are at sea without a compass. Anatomy ceases to guide us, and it is probable that such disputes will never be settled.

And what shall I say of the noble science of Geology, which strives to know the chronology and formation of the globe? It goes hand in hand with comparative anatomy, like sculpture with painting—in fact, organic remains are the hand-writing of the Almighty upon stone, by which he has revealed to the geologist all that we know of Preadamite history of the Earth, and it is to the anatomical labor of the immortal Cuvier, that we are indebted for our most important geological knowledge.

The following quotations, from the work of Professor Hitchcock, on “Geology and Religion,” in allusion to the fossil remains of extinct animals, will give some idea of the intimate and extensive connection between comparative anatomy and geology. “The fossiliferous rocks,” says he, “or such as contain animals and plants, are not less than *six or seven miles in perpendicular thickness*, and are composed of hundreds of alternating layers of different kinds, all of which appear to have been deposited, just as rocks are now forming, at the bottom of lakes and seas; and hence their deposition must have occupied an immense period of time. Even if we admit that this deposition went on in particular places much faster than at present, a variety of facts forbids the supposition that this was the general mode of their formation.

“The remains of animals and plants found in the earth are not mingled confusedly together, but are found arranged, for the most

part, in as much order as the drawers of a well regulated cabinet. In general, they appear to have lived and died on or near the spots where they are now found ; and as countless millions of these remains are often found piled together, so as to form almost entire mountains, the periods requisite for their formation must have been immensely long.

“ Still further confirmation of the same important principle, is found in the well established fact, that there have been upon the globe, *previous to the existing races, not less than five distinct periods of organized existence* ; that is, five great groups of animals and plants, so completely independent, that no species whatever is found in more than one of them, have lived and successively passed away, before the creation of the races that now occupy the surface. Other standard writers make the number of these periods of existence as many as twelve. Comparative anatomy testifies, that so unlike in structure were these different groups, that they could not have co-existed in the same climate and other external circumstances.

“ There are abundant facts to prove that the climate of the whole globe was warm or even warmer than the tropics of our day, and the slow change from warmer to colder, appears to have been the chief cause of the successive destruction of the different races ; and new ones were created, better adapted to the altered condition of the globe ; and yet each group seems to have occupied the globe through a period of great length, so that we here have another evidence of the vast cycles of time that must have rolled away even since the earth became habitable.

“ Among the thirty thousand species of animals and plants found in the rocks, very few living species have been detected ; and even those few occur in the most recent rocks, while in the secondary group, not less than six miles thick, not a single species now on the globe has been discovered. Hence the present races did not exist till after those in the secondary rocks had died.”

Another very curious result of anatomical investigations is the fact, “ *that the laws of anatomy have always been the same since organic structures began to exist.*”

“ It has long been known that the organs of animals were beautifully adapted to perform the functions for which they were intended. But it was not till the investigations of Baron Cuvier, within the last half century that it was known how mathematically exact is the *relation* between the different parts of the animal frame, nor how precise are the laws of variation in the different species, by which they are fitted to different elements, climates, and food. It is now well known that each animal structure contains a perfect system of *correllation*, and yet the whole forms a harmonious part of the entire animal system of the globe.

To use the language of Cuvier : “ Every organized individual,” says he, “ forms an entire system of its own, all parts of which mutually correspond, and concur to produce a certain definite purpose, by reciprocal action, or by combining towards the same end. Hence, none of these separate parts can change their forms without a cor-

responding change in the other parts of the same animal, and consequently each of these parts to which it has belonged. Thus, if the viscera of any animal are so organized as only to be fitted for the digestion of recent flesh, it is also requisite that the jaws should be so constructed as to fit them for devouring prey; the claws must be constructed for seizing and tearing it to pieces; the teeth for cutting and dividing its flesh; the entire system of the limbs, or organs of motion, for pursuing and overtaking it; and the organs of sense for discovering it at a distance. Nature must also have endowed the brain of the animal with sufficient instinct for concealing itself, and laying plans to catch its necessary victims." This is the picture of a carnivorous animal, and the same adaptation of structure and instincts to mode of life will be found in the herbivorous and all others, large or small, perfectly or imperfectly organized. "Hence," says Cuvier, "any one who observes merely the print of a cloven hoof, may conclude that it has been left by a ruminant animal, and regard the conclusion as equally certain with any other in physics or in morals. Consequently, the single foot mark clearly indicates to the observer the forms of the teeth, of all the leg bones, thighs, shoulders, and of the trunk of the body of the animal which left the mark.

"By thus employing the method of observation, where theory is no longer able to direct our views, we procure astonishing results. The *smallest fragment of bone*, even the most apparently insignificant apophysis, possesses a fixed and determinate character relative to the class, order or genus and species of the animal to which it belonged; insomuch, that when we find merely the extremity of a well-preserved bone, we are able, by a careful examination, assisted by analogy and exact comparison, to determine the species to which it once belonged, as certainly as if we had the whole animal before us.

Cuvier first fully tested this law of correllation of parts, in existing animals, but it remained for him to apply the same principles to remains of fossil animals. It was certain that if the laws of anatomical structure were the same in the pre-Adamite creations, as they are now, the above principles must apply equally well to the bones found in the rocks, and though often only scattered fragments are brought to light, the anatomist would be able to *re-construct* the whole animal, and present him to our view.

The quarries around Paris had furnished a vast number of bones of strange animals, and these had been thrown promiscuously into the collections of the city. Cuvier determined here to put his principles to the test amidst this huge and confused mass of fossil remains. "I found myself," says he, "as if placed in a charnel house, surrounded by mutilated fragments of many hundred skeletons, of more than twenty kinds of animals, piled confusedly around me. The task assigned me was to restore them all to their original position. At the command of *comparative anatomy*, every bone, and every fragment of a bone resumed its place. I cannot find words to express the pleasure I experienced in seeing, as I discovered one

character, how all the consequences which I predicted from it were successively confirmed ; the feet were found in accordance with the characters announced by the teeth ; the teeth in harmony with those indicated beforehand by the feet ; the bones of the legs and thighs, and every connecting portion of the extremities, were found to set together precisely as I had arranged them, before my conjectures were verified by the discovery of the parts entire ; in short, each species was, as it were, re-constructed from a single one of its component elements."

Here, then, we have demonstrated, by the light of anatomy, that the same laws of life which now prevail in the world, have existed through a succession of creations, through thousands, tens of thousands, and probably millions of years.

Organic remains, too, teach us that there have been, in the remotest geological epochs, viviparous as well as oviparous creatures, and gemmiparous as well as fissiparous animals and plants. They were also carnivorous, herbivorous, and omnivorous animals ; they possess the same internal organs as animals of our day and they were governed by the same physiological laws as those of the present day.

What a wonderful achievement it is for anatomy, that it should thus have exhausted the existing Fauna of the earth, and have followed up, step by step, the foot-prints of the Almighty, through this plan so vast in time, so gigantic in extent, and so infinite in wisdom !

Nor is anatomy without intimate connections with both natural and revealed religion. Of the latter, I have not time or inclination to speak here ; but what need is there of volumes on natural religion with facts before us like those I have presented. No sane man could follow this long chain of organized beings through creation after creation, through those countless ages of time, could reflect on that plan which has been working with such harmony from beginning to end, and doubt there is a Supreme and Overruling Intelligence, and that we are responsible to him, and him alone, for our acts in this world.

Had we time, I could easily show you to what extent even physics are indebted to anatomy. The human frame is a beautiful machine, from which the mechanic arts have received many useful lessons. It is a system of levers, fulcrums, pulleys, admirably arranged for motion and strength. The celebrated Kipler devoted much study to the structure of the eye. It suggested to the mind of Euler the possibility of achromatic lenses, and the whole science of optics has gained much from the study of the eye. Of like importance has been the anatomy of the ear, on which is based the science of acoustics.

I will conclude by calling your attention for a few moments, to one point more, and not the least important, viz : the connection between anatomy and ethnology.

When we cast our eyes over the broad surface of the globe, and behold the endless variety of human beings which inhabit it, of every shade of complexion, of the most opposite physical conformation,

and of the most diverse moral and intellectual characters; I say, when we look upon all this, in spite of the influence of early education, we are driven to ask ourselves the question, "Are these races of men of one parentage, and are they alike capable of moral and intellectual cultivation?" The *origin of man* is a momentous question, one which has elicited much discussion among the wisest heads, and is one which I shall not touch here; but still the physical history of man has certain important connections with the view of anatomy I am now placing before you, which render it impossible for me to pass it by in silence, without doing manifest injustice to the science of anatomy, which it is my duty to teach.

Of the precise epoch at which man was placed on the earth, we know nothing. The short chronology of Archbishop Usher, of six thousand years, is now abandoned by every well informed writer in the church and out of the church; it may be ten thousand, twenty thousand, or one hundred thousand for aught we know. Nor can we divine how far back such well marked races as Jews, and other white races; Negroes, Mongols, Hottentots, Australians, Indians, Malays, etc., etc., first made their appearance. This much, however, has been positively demonstrated through evidence derived from Egyptian, Assyrian, and Chinese monuments and records, viz, that the Jews and other white races, as well as Negroes, Egyptians, Mongols and other well marked types of man existed at least five thousand years ago as distinct from each other as they now are; and it is equally certain that these forms have, during this long period, been permanent and unchanged by climate or other existing physical causes; no race during this time has been transformed into another, whatever miracles may have been performed in earlier ages.

We not only have evidence of the existence of distinct races from the Bible, Homer, Herodotus and other early writings, but we have actual portraits of races, on the monuments of Nineveh, Babylon, and Egypt, dating back several thousand years. Nay, more, if all this were not sufficient, we have other overwhelming evidence of the antiquity of races. We have the mummies of Negroes, Jews, and other races taken from the ancient catacombs of Egypt, which place the question at once in the hands of the anatomist. We have other human remains from the barrows of Britain and Germany, from the mounds of America, from the ancient burying grounds of Mexico and Peru, from the ruins of Nineveh, from the bone caverns and other sources, all of which give to the anatomist ample material for proving the *permanency* of types through all known physical influences, and all known time.

When these different races of men are brought together and compared *anatomically* they are found to differ quite as widely in structure, as do the species in most of the genera of animals. Compare, for example, the skeletons of the African Negro, and the Anglo-Saxon, and I do not hesitate to assert that they differ as much as those of the polar and tropical bears—the horse and the ass—the

dog and the jackal, or the lion and tiger; but we shall call your attention to but one anatomical point by way of illustration. I will select the brain, as it is the organ of intelligence, which should form the most striking and satisfactory point of distinction.

The lamented Dr. Morton, of Philadelphia, who has done more in this department of anatomy than any other man, collected and measured accurately more than one thousand skulls of various races. Since his death, his collection, which has been deposited in the Academy of Sciences, of Philadelphia, has been considerably extended, and has been re-measured by Dr. Meigs, with the same results. It has thus been ascertained that not only do the races show a great variety of forms in the external configuration of the skull, but a marked difference in the size of the brain. If we compare together the two extremes, viz.: the Teutonic and North European races below the Arctic, with the Hottentot of the Cape of Good Hope and the Australian, we find the former have seventeen cubic inches more of brain than the latter; if then we take the Mongol races, the Malays, the Negroes of tropical Africa, the American Indians, and other races, we shall find that there exists a gradation between the two extremes, and that anatomy assigns to each its proper position in the scale.

Nor is it less certain that the large-headed, fair-skinned races have been the rulers of the world and the depositaries of all true civilization. The Mongol races, who have brains intermediate in size between the white and black races, have long since achieved a semi-civilization beyond which they cannot rise: while the intellects of the darker races have remained as dark as their complexions. From the Barbary States to the Cape, no race has ever invented an alphabet—no manuscript or tablets have been found to tell their rude history, and no architectural remain has been found to mark a bright spot on the five thousand years, during which we know they have existed.

Now, *when* did this great inequality of the races begin? Of this we know nothing, but the great practical fact remains that it has existed for several thousand years, and we have every reason to believe that it will remain till these races are extinct. We have shown that both anatomy and history prove that the physical cause now in operation on earth has not been able to transform one type into another.

There are well meaning philanthropists who talk to us about the influence in education and sing hosannahs over the wonderful results which are flowing from the colony of Liberia, and the efforts of Missionaries in civilizing these inferior races. Anatomy teaches us that it is impossible, as history has before done, until you can fall upon some plan by which seventeen cubic inches of brain can be added to that of the Hottentot, the Bushman, or the Australian, you cannot add to his intellect, or his capacity for civilization. I have examined this question with a great deal of care, and can find no facts, or evidence whatever to show that education can enlarge the

brain. We know that the muscles of the arm of the blacksmith will enlarge by the constant use of the hammer, but when did thought ever increase the size of the brain, any more than vision does that of the eye, or hearing the nerve of the ear? There is no analogy between the actions and functions of the nervous system, and those of the muscular system.

The brains of royal families—of nobility, which have been educated classes for centuries, have no larger heads than the lower classes. Educated communities have no advantage in this respect, over the uneducated. The ancient Britons and Germans had the same skulls as their more civilized descendants. The heads of Napoleon, Newton, Shakespeare and Locke were as large at the age of sixteen as at fifty. In a word, there is no more evidence to prove that you can change the size and form of head in a race, than that you can change the form of a negro's foot, his pelvis, his thick lips and nose, his black skin and woolly hair. These are anatomical peculiarities stamped on him by his maker at some time unknown to us, and nothing short of the miraculous interference of the same power can change his anatomical structure. Anatomy thus teaches us a great practical fact and one which should be well understood, by the statesman, the philanthropist and the theologian. We must take the works of God as we find them, and not suffer ourselves to be misguided by Utopian schemes. As Knox quaintly said, you can not change an Irishman into an Englishman by act of parliament.

But it is time that I should draw this rambling essay to a close. The subject is sufficiently extensive for volumes, and if I have succeeded in directing thought to the value of anatomical studies my aim is fully met.

It must be clear to any one who takes the trouble to investigate the subject, that anatomy has, from the time of Aristotle to the present day, exercised a controlling influence over many departments of human knowledge, over the progress of civilization.

Read the history of the world and you will find that medical colleges have ever been the foci around which have clustered the whole circle of natural sciences.

Clinical Instruction in Great Britain.

From the *Edinburg Medical Journal* for October 1857, we condense the requirements in regard to clinical instruction, of the various licencing boards of the United Kingdom of Great Britain, which are authorized to confer the privilege of practicing medicine and surgery in that realm. This instruction is attended during the last two years of the student's pupilage. Usually a clinical lecture on medicine, and one on surgery are delivered each week, and an hour each day is spent in the medical and another in the surgical wards of a hospital during the course.

The Edinburgh University, for the degree of M. D. requires *three months* attendance upon lectures on clinical surgery, *six months* upon lectures on clinical medicine, and *twelve months* attendance in the wards of the Medical Hospital.

The University of Glasgow, for the same degree, requires *twenty-four months* attendance upon a medical hospital, *twenty-four months* upon lectures on clinical medicine, and the same amount of time devoted to attendance upon a surgical hospital, and upon lectures on clinical surgery.

The University of Aberdeen requires *six months* attendance on lectures on clinical medicine, *three months* clinical surgery, *twenty-four months* in a medical hospital, and the same time in a surgical hospital.

The University of St. Andrews requires *six months* attendance of lectures on clinical medicine, and the same on clinical surgery, and *twenty-four months* attendance in a medical and the same in a surgical hospital.

The London University requires for its full medical degree, that the candidate should have attended *twelve months* on each of the four courses of clinical instruction, viz: clinical medicine, clinical surgery, medical hospital, and surgical hospital.

The Dublin University requires, for the lowest degree of M. D., *nine months* attendance upon clinical medicine; and for the surgical diploma *twenty-seven months* upon each of the courses, medical hospital, clinical medicine, surgical hospital, and clinical surgery.

The Queen's University, of Ireland, requires for the first degree, *six months* attendance on each of the above courses; and for the second degree *eighteen months* in each of the two hospitals, and the same length of time on clinical surgery.

The Royal College of Physicians, London, requires *thirty-six months* attendance upon lectures in clinical medicine, and the same length of time in a medical hospital.

The King & Queen's College of Physicians, Ireland, requires attendance upon clinical medicine and a medical hospital, each *six months*, and upon clinical surgery and a surgical hospital each *twenty-four months*.

The Royal College of Surgeons, Edinburgh, requires attendance upon clinical medicine and clinical surgery each *six months* and the two hospitals each *twenty-one months*.

The Faculty of Physicians and Surgeons, of Glasgow, requires the same.

The Royal College of Surgeons, London, requires *nine months* in clinical medicine, *twenty seven* in clinical surgery, attendance of *one winter* and *one summer* in a medical hospital, and *three winters* and *two summers* in a surgical hospital.

The Royal College of Surgeons, Dublin, requires attendance on each of the four courses of clinical instruction before named, *twenty-seven months*.

The Apothecaries' Hall, England, requires *nine months* of clinical medicine, and *eighteen months* in a medical hospital.

The Apothecaries' Hall, Ireland, requires *eighteen months* attendance on each of the four courses.

The Army Medical Board requires, of clinical medicine and clinical surgery, each *eight months*, and attendance upon each of the hospitals *eighteen months*.

The Navy Medical Board requires the same attendance of *eighteen months* in each of the hospitals, and *six months* attendance upon each of the courses of clinical lectures.

The East India Company Medical Service requires *six months* attendance upon lectures in clinical medicine.

By this statement it will be seen that clinical instruction is regarded so essential in Great Britain, that not a single institution grants a diploma to a candidate who has not availed himself of such advantages. The American Medical Association, which may be regarded as the authorized exponent of the professional sentiment of this country, has repeatedly urged the importance of making such instruction necessary to graduation among us, but as yet with very partial success. But everything must have a beginning, and valuable things have a growth—often a slow one. By keeping the subject before the profession, a practical recognition of its importance will at length become general. In Europe, clinical and hospital instructions are not conducted simultaneously with all the other branches of medical science—that is, students do not attend all the other branches of study while attending clinical instruction; some degree of order and succession is observed. We are making a beginning, we think, in the right way—and it is not a little to make a beginning in a great and good cause.

In looking over, in the same Journal, an account of the courses of instruction of the Medical School of Scotland, we find they have a winter and a summer session, and that these differ decidedly in their programmes. During the winter session the course of study is Anatomy, Systematic and Practical, with demonstrations; Physiology, Chemistry, Systematic and Practical; Materia Medica and Therapeutics, Systematic Practice of Physic, Systematic Surgery, Midwifery, Natural Philosophy, Natural History, General Pathology, Clinical Medicine and Clinical Surgery. In the summer session the course is, Practical Anatomy and demonstrations, Comparative Anatomy, Histology, Practical Chemistry, Botany, Medical Jurisprudence, Natural History, Clinical Medicine and Clinical Surgery.

In the University of Edinburgh, Dr. Bennett, who does not teach the Systematic Practice of Physic, is associated with Dr. Laycock, Professor of Practice, as Professor of Clinical Medicine; and Mr. Syme has the exclusive charge of the Department of Clinical Surgery, while Professor Miller has the Chair of Systematic Surgery. In the Systematic Course, Dr. Bennett teaches Physiology and Histology. Similar arrangements as to the distribution of labor occur in the other schools.

[From the Virginia Medical Journal.]

Clinical Lecture on Retention of Urine from Enlargement of the Prostate Gland, and on Spermatorrhœa in connection with Irritable Prostate: By JOHN ADAMS, F.R.C.S., Surgeon to the London Hospital.

GENTLEMEN—One of the most common causes of retention of urine is enlargement of the prostate gland; a week seldom passes in hospital practice without a case of this description being admitted. I have nothing new to say upon this subject, but presuming that there may be some among you who do not understand it, I consider myself quite justified in directing your attention to it, especially as, a short time ago, a case of this sort was under my care in the wards. The prostate is very apt to become enlarged in old men, and it thus gives rise to a mechanical impediment to the escape of water from the bladder, causing retention of urine; or, as it very frequently happens, your attention is called to a patient who is said to have an irritable bladder, and who is continually passing a small quantity of water without obtaining any substantial relief: if the patient is an old man, you at once suspect that he is laboring under the infirmity in question, and you conclude that the cause of this state of the bladder arises from its being overcharged with urine, and that, as in an overfull cistern, the water is constantly running in small quantities through the waste pipe; you therefore pass a catheter, and at once draw off, perhaps, a quart of urine. The case is now clearly revealed, and you proceed to treat it just as if a complete retention existed. It is said, on high authority, that enlarged prostate is not the disease of the aged. I confess I do not understand this. I admit, however, that in the greater number of aged persons there may be not only no hypertrophy, but actually an atrophy of the gland; yet it most certainly happens that retention from this disease almost invariably occurs in old persons, and, therefore, when called to cases of retention in the aged, we look instinctively to the prostate gland as the cause, and act accordingly. You are aware that both lateral lobes of the prostate become hypertrophied, but the left lobe is supposed to be more frequently affected than the right. It is as well to bear this in mind, as some modification in the passing of the catheter may be thereby necessitated. It is said that the middle lobe is frequently the seat of enlargement, and so, no doubt, it is; but that which is presumed to be the middle lobe has often nothing whatever to do with it, but is a growth springing from that portion of the gland which connects the lateral lobes of the prostate together, and which, in a book I published some time ago on the diseases of the prostate, I designated the "isthmus prostatici." This subject has been well considered by Mr. Thompson, who has given the result of numerous dissections of enlarged prostates, and this is one of the results of his inquiries. In the treatment, however, of these cases, it does not much signify whence the enlargement proceeds, nor what is its nature; the catheter must be employed for the relief of the retention. You should, however, bear

in mind the fact, that in enlargement of the prostate the bladder is often exceedingly irritable, and unable to retain even an ounce of urine. This condition can always be well made out by catheterization.

You must, therefore, pass a catheter; you may take a silver or elastic instrument; you may take one with a long curve, or a short curve, or you may pass an elastic catheter with no curve at all. You are all familiar with the ordinary manœuvre required in passing a large prostatic catheter; you get the point down to the neck of the bladder, and then, finding an obstacle, you depress the handle, and thus tilt up the point, and the catheter then enters the bladder. It now and then will happen to you that you cannot get the ordinary prostatic catheter into the bladder, and you try other instruments with like want of success; you then use the elastic catheter, giving it the peculiar curve described and delineated by Mr. Hey, by withdrawing the stilet after the point has reached the prostate; still this will fail you occasionally, and you may exhaust your whole stock of curved instruments unsuccessfully, and you will be surprised to find that a moderate-sized elastic catheter, without the stilet, and made straight before its introduction, will pilot its way gradually between the lobes, and reach the bladder. I have so often seen this, that I really think it better to use the elastic catheter first of all. You cannot do any harm by it, which is more than can be said of the use of the silver instrument.

Now, if you fail in the introduction of the catheter, what are you to do? The patient must be relieved; and it is a rare thing, indeed, that a skillful surgeon is baffled in relieving cases of retention of urine from enlarged prostates; but such cases I have heard of: I never saw it, but it has occurred to the most experienced, and will, no doubt, occur again. Should this unfortunately happen to you, you are recommended to push the catheter through the back of the prostate, and thus make a false passage. This operation is now and then fatal, but occasionally it happens that, if the false passage is maintained, the patient never suffers from any relapse, and considers himself cured permanently. In some cases, it has been thought advisable to puncture the bladder. I need scarcely remark, that the only situation in which the bladder can be advantageously punctured in these cases is above the pubis; but this you can only undertake when the hypogastric tumor is fully developed. The water is to be drawn off night and morning, or more frequently if requisite, and after some days the patient makes water himself, showing that retention has been immediately caused by some unusual distention of its blood vessels, probably some congestion of the veins, which are so numerous around the gland, and under the mucous membrane about the neck of the bladder.

This condition of vessels also explains a symptom of very common occurrence in the cases now under consideration—I mean hemorrhage to such an extent as to re-distend the bladder almost immediately; the bladder becomes intolerant of its contents, and you reintroduce the catheter, and you find a chamber pot half full of fluid, so discol-

ored with blood as to look like blood itself. Don't be alarmed about this ; you may assure your patient that it will speedily subside ; and in the course of a few days, as in a case just discharged from the hospital, the urine becomes as clear as ever. You may give a little mucilage with liquor potassæ and tincture of hyoscyamus, and in this manner allay the irritability of the bladder.

If you should have much difficulty in passing the catheter, and especially if your patient lives a long distance from you, you may tie the catheter in, and leave it in for a few days. This plan is not usually adopted, but I am sure it is a practice more conducive to the safety of the patient than the constant renewal of painful efforts to pass the catheter night and morning. I don't much like to give opium in cases of irritable bladder from enlarged prostate. It may, however, be advisable to give it. It is not unfrequently given to the detriment of the patient, in cases where the bladder is irritable from over-distention ; it tends to increase the evil, as it rather allays the irritation, and thus favors the increase of the accumulation. It may, however, be justifiable even in these cases, as where the surgeon is unable to pass the catheter, and is seeking further advice, as it is called ; you may thus gain time, and the patient's sufferings being lulled by the opiate, the desire to micturate is not so urgent.

I am anxious to make a few remarks to you on the subject of spermatorrhœa as frequently connected with prostate irritation ; and I do this the more willingly because it is a subject that surgeons do not much like to handle. They rather are disposed to repudiate it as unworthy of their consideration, the consequence of which is that the cases of spermatorrhœa fall necessarily into the hands of those gentlemen who largely advertise in the Sunday newspapers. These journals teem with advertisements bearing on this subject, and the attention of young persons is directed to this complaint, and they are led to suppose that they are affected with a disease of which many of them are wholly innocent. Spermatorrhœa is a disease, and ought to be studied, understood, and treated as such. You will find it quite amenable to treatment if this is carefully, and I may say, scientifically conducted. There is no disease which produces so powerful an influence on the mind as this. When a patient enters your room to consult you on the subject of spermatorrhœa, you understand him at once by a single glance of your eye. Don't imagine, however, that all are cases of spermatorrhœa which are supposed by the patients themselves to be so ; nine-tenths of such patients are free from the disease altogether, and on inquiry you will find that the only complaint many have to make is, that perhaps once a fortnight they awake from their sleep with a seminal emission, and that this is wholly unattended with pain, and not followed by any inconvenience whatever. These are just the cases for the empiric. He first fosters and encourages the idea of disease, and then proceeds to cure a disease which really never existed. I need scarcely tell you that this affection is often merely an effort of nature to relieve herself.

I am satisfied in my own mind that in very many cases of supposed spermatorrhœa there is no emission of seminal fluid whatever. Such cases as those to which the following remarks are applicable are of this description ; and they are exceedingly numerous. A patient will call on you, and with downcast eye or partially averted countenance, say that he is unfortunately the subject of spermatorrhœa, and that he is confirmed in his opinion by what he has read in books relating to this subject. You inquire into his case, and he tells you that whenever he makes water, it is always followed by a discharge of semen, and that this is especially the case when he passes a stool. You tell him that this is no decisive evidence of the escape of the secretion of the testes, but probably comes from the ducts of the prostate and the vesiculæ seminales. You ask him whether this discharge is accompanied with any sensation, and he answers, No. You are now confirmed in your opinion that he has no spermatorrhœa, for you may be quite certain that no emission of seminal fluid ever occurs without some sensation. You will find, however, that it is impossible to convince the patient that he is laboring under a delusion, and I do not advise you to appear to be too positive on the subject. As surgeons you are bound to tell the truth, and place the patient's case fairly and properly before him ; and if he still remains unconvinced as to the true nature of his case, do not send him away, but tell him that you hope, nevertheless, by appropriate means, to be able to remedy the condition under which he labors. I always make a point under these circumstances to prescribe some mild tonic with a few grains of soda and amonia, and I generally pass a fair-sized catheter, first to prove that there is no stricture, and next because it acts as a gentle stimulus to the urethra, perhaps causing a slight pain and the flow of a few drops of blood, which may divert the patient's attention from an imaginary evil to a real fact. I have found that in a very large number of these cases there is really nothing whatever unusual, and that the disease is altogether imaginary ; while in a very few the whole malady, if so it can be called, consists in the escape of a small quantity of a slight glary secretion, possibly mere mucus from the urethra ; or it may be a little fluid squeezed, by forcing at a stool, from the prostate gland ; any of the true vesicular secretion is comparatively rarely met with. I recommend you, however, not wholly to repudiate the case ; convince him of his error, if you can, but do not dismiss him as if you wholly disbelieved his statements, for he will still cling with obstinate tenacity to his own ideas, and will think that you are too ignorant to understand his case.

Now, these are also just the cases for the quacks ; and such cases are of constant occurrence ; I could enumerate many such.

I now call your attention to another condition frequently associated with the former, but frequently existing as a positive disease independent of it. I mean true spermatorrhœa, and nocturnal seminal emissions. I name them separately, although the latter is comprehended in the former term. But I have some doubt whether

spermatorrhœa does often take place at any other time except during the night, and under the influence of, or accompanied by a dream. It, however, may happen under particular states of excitement at any time, and as a consequence of one or two conditions ; that is, it may arise from trifling excitement, where great debility of the organs of generation has resulted from masturbation ; or in cases of excessive over-excitement, in a vigorous state of the parts. The remedy in both cases is simple enough, namely, abstinence from those causes which lead to the condition under consideration ; in other words, avoidance of all excitement of the generative organs. The former is often referred to irritation of the prostate gland, and that part of the urethra where the seminal ducts terminate, namely, the prostatic sinus ; and hence the employment of caustic to the part frequently affords effectual and permanent relief. This plan, coupled with the use of tonics and all means calculated to invigorate the system, is frequently all that is requisite for its cure. Nocturnal emissions are far more common. They are the cause of serious annoyance ; and if they frequently recur, produce effects most debilitating to the patient. It is not my intention to go into all the symptoms resulting from this unfortunate state of things, but I must warn you not to attach too much importance to the occasional discharge of seminal fluid at night. Unless it often recurs, we may rather regard it as a relief to the system, than as constituting a very serious affection. Still, when once the mind of a patient is directed to it, it becomes to him a source of extreme annoyance, and he rushes blindly at once to those whom he supposes are capable of affording him immediate assistance. You must remember what I said before, that no diseases possess so powerful an influence on the mind as those connected with the organs of generation ; and this need not on reflection excite our surprise, when we consider the universal sympathy between these parts and the body, as well as the mind, even in health.

Let me explain to you what I conceive to be the rationale of this condition. Nocturnal emissions occur almost invariably under the influence of a dream, and, as far as I can ascertain from the history of patients, are always accompanied by a sensation pleasurable or otherwise. I believe they never occur without exciting or being accompanied by some sensation. My inquiries also lead me to the conclusion that they generally occur just at the termination of the first natural sleep, and usually in the early part of the morning. They are, therefore, matutinal rather than nocturnal emissions. This is rather an essential point to understand, as you will see in the sequel. It is difficult to say whether they occur as the consequence of a dream, or whether they are of themselves the cause of the dream. My opinion is that in this regard they vary. I cannot go into a lengthened discussion as to the true nature of dreams. I believe that dreams frequently originate in the mind in imperfect sleep as a consequence of the powerful influence upon the mind of some past event ; and every one knows that dreams are readily

excited by some physical impression; thus school boys excite to micturition by placing the hands of their school fellows in cold water during sleep. Now, in the case of seminal emissions, at least such as occur night after night, or morning after morning, I think it is the mental impression which excites the dream, and the emission is the consequence. The patient is always thinking of his condition; it haunts him day and night; he gets a habit of thinking of his state, and hence in a weakened state of parts the habit of secretion and emission is also attained. That dreams are also excited by an ever-charged state of parts must be evident at once, and such dreams are also accompanied by seminal emissions. I need scarcely allude to the natural mode of relief in such cases—but even these cases admit of considerable melioration by suitable means. The phenomena of dreams constitute a most interesting department of psychology. I shall not enter into the subject here; it is admirably treated by the late Dr. Abercrombie, and has also been particularly elucidated by Lord Broughman in his *Discourse on Natural Theology*. In reference to our own subject, however, I may be permitted to allude to a well-attested phenomenon connected with dreams; I mean the rapidity with which, as Lord Broughman expressed it, a long succession of images passes through the mind with perfect distinctness and liveliness. In a dream, which occupies only an instant of time, a series of ideas relating to many events will frequently pass before us. The proof on which this assertion rests illustrates at the same time the fact that dreams generally happen just at the termination of sleep, and whilst, it may be said, we are half asleep and half awake.

I am certain that this is the case with dreams attended by seminal emissions; and it is a belief in the correctness of this assertion that has led me in very many instances to recommend a simple procedure, which often alone effectually puts a stop to those discharges. I could enumerate many cases in which, by simply directing a patient to rise early in the morning, and immediately after his first sleep, a discharge, to which he has been accustomed for many days and weeks in succession, has been wholly put a stop to, and has not recurred. I believe that the first sleep is always the soundest; and if this be so, the mind may best rest as well as the body, and no dreams occur; but if the patient indulges in a second sleep, the mind wanders, dreams take place, and that impression which weighs heaviest on the mind gives rise to its own peculiar train of ideas, and hence emissions, etc. Surely this is no difficult remedy to pursue; it only requires a little resolution. It is conducive to health both of body and mind; and if it thus breaks a chain of association, attended with such unpleasant results, it certainly is well worth our deep consideration and trial. Indeed, I find no difficulty in getting patients to put it to the test, but after a time they frequently lapse into their old indolent habit, and are again annoyed by emissions, which, however, seldom recur with their wonted frequency, and sometimes wholly cease.

You must remember, however, that while you are submitting your patient to this moral regimen, as I may call it, it is desirable, for various reasons, to pursue some medical treatment, and I advise that you should pass a moderate-sized catheter twice or thrice weekly, and give a little conium at night, and a few grains of carbonate of soda, in any vehicle you please, say infusion of gentian, two or three times a day. I also generally advise a cold hip bath night and morning. This may be regarded as a very essential part of the treatment, and I have often found it successful when used alone.

I should be sorry to assert that this method of treatment will invariably answer. It certainly will not, but you will be surprised at its success in very many instances, and is therefore well worthy of a trial. If it fails, no harm results; but I think it will not fail, for the remedies or means now recommended are generally attended by an improvement in the general health, and are, therefore most likely to result in the relief of a local disease; and surely this affection may be ranked in this category.

If the plan does not succeed, recourse may be had to the use of the nitrate of silver, which, concealed in a canula, is to be applied to the *veru montanum*, with a view to allay the irritability of that part of the urethra where the seminal duct ends; for you all know that irritation of the orifices of ducts will always lead to a flow of the peculiar secretion of the gland to which the duct belongs; a fact you may easily illustrate by touching with your tongue Steno's duct, by which a flow of saliva is at once excited. But I am bound also to tell you that the simple plan I have developed to you has in very many instances succeeded where the use of the caustic has wholly failed; and further, I must say that the caustic treatment is not wholly without risk, as I have known severe stricture to have resulted from its improper and indiscriminate use.

The subject I have just considered is not a pleasant one by any means. It is usually consigned to the empyric; thorough bred surgeons do not like to meddle with it. It is only for this reason I venture to submit my observations to you, and I am quite certain that attention to the circumstances I mention will amply reward your pains. You may be the means of affording relief in many cases of unusual difficulty, and you will be able thus to give satisfactory relief to the minds of those who really require very great commiseration. I do not enter into the subject very fully; I am only anxious to introduce it as an appendage to the few remarks I have made on the prostate gland, and no doubt the disease in question is most intimately associated with the prostatic part of the urethra.

The Influence of the Gulf Stream upon the Summer Climate of the Atlantic Coast of the United States. Read before the Montreal meeting of the American Association for the Advancement of Science. By JAMES WYNNE, M.D.

The object of this paper is strictly hygienic. There are few medical men, engaged in any considerable practice, who have not under their charge patients whose diseases require a change of climate, as one of the most efficient modes of relief; and it not unfrequently happens that the proper selection of a residence is a matter of such importance, as to constitute the entire difference between a favorable and an unfavorable termination of the disease. Any light, therefore, thrown upon this subject, which will enable the medical man to indicate the choice of a selection with greater confidence, as to the absolute condition of the climate, will, I am convinced, be kindly received by those members of the Association who are connected with this profession, and may not be unwelcome to those who are engaged in other pursuits.

The recent examinations conducted by the officers under the direction of the Superintendent of the Coast Survey, have shown that the bottom of the Atlantic Ocean presents a range of mountains, pursuing a similar course to the Apalachian chain, some distance back from the coast. These examinations have not yet been completed, but so far as they have been prosecuted, they clearly demonstrate the continuity of this chain of submarine mountains, and its general course. The effect of this configuration of the bottom of the ocean over the temperature of the water, is clear and unequivocal. The whole extent of this influence has not yet been determined, but thus far it shows that the Gulf Stream is not one uniform mass of warm water, pursuing a northeasterly course along the coast, at a pretty uniform distance from it, but a series of bands of warm water, interspersed with colder ones. These have been laid down by Prof. Bache, with admirable precision, in his map delineating the distribution of the temperature of the Gulf Stream. An underlying Polar current of cold water, even in the more southerly explorations, is likewise clearly established.

The position of this mountain chain, in affecting the temperature of the air along the coast, as well as the water overlaying it, has been as clearly demonstrated. Lieut. Maury, in his pilot-chart of the North Atlantic, has recorded the direction of the wind, for each month in the year, with great accuracy. The information contained in his chart is taken from the most authoritative sources, and, in some instances, extends back as far as 1810. This chart subdivides the ocean into squares, of five degrees each of latitude and longitude, and the monthly observations, within each subdivision, are made to extend over this surface. For the purpose of the present inquiry, subdivisions of a single degree would have afforded greater definiteness, but the facts deduced from the chart, as it is, are of the highest value. As our inquiry is confined to the summer months, when invalids in search of health, or those who are well, in pursuit

of a more temperate air than is to be found in the cities, or even in rural districts, visit the sea-shore, the deductions from the chart will be confined to the months of June, July, and August, and to that portion of the Atlantic stretching along the sea-coast.

In the subdivisions between latitude 30 deg. and 35 deg. and longitude 70 deg. and 75 deg., embracing the sea-coast from St. Augustine, in Florida, to Cape Hatteras, in North Carolina, there were made ninety-nine observations of winds, in the month of June; of these forty-one, or nearly one-half, were from the south and southwest. In July eighty-four winds were noticed, of which fifty-two came from the south and southwest; in August, one hundred and thirty-eight, of which sixty came from the south and west.

In the subdivision embracing latitude 35 deg. to 40 deg. and longitude 70 deg. to 75 deg., extending from Cape Hatteras to Cold Spring, N. J., three hundred and fifty winds were observed in the month of June, of which one hundred and forty-three were from the south and southwest; in July, three hundred and ten, of which one hundred and sixteen came from the south and southwest; and in August, three hundred and sixty-six, of which one hundred and twenty-three were from the south and southwest.

In the subdivision between latitude 40 deg. and 45 deg. and longitude 70 deg. and 75 deg., embracing Long Island Sound and the southern expanse of the New England coast, in June two hundred and thirty-one winds were noted, of which one hundred and eight came from the south and southwest; in July, three hundred and eight, of which one hundred and sixty were from the south and southwest; and in August, one hundred and eighty-three, of which sixty were from the south and southwest.

These are the facts. The deductions from them are important. It appears, from these observations, that of the prevailing winds in the summer months, never less than one-third, and, in many instances, one-half, come from the south and southwest. It must be remarked that the winds noted were sailing winds, with some degree of force, and not the slight, ruffling breeze which, although insufficient for the purpose of rapid sailing, is yet most grateful in its effect upon the health and comfort of those so circumstanced as to come within its range. The usual direction of this lighter breeze on the Atlantic, in the summer months, is from the south and southwest, directly over the current of warm water composing the Gulf Stream. The winds from this quarter are, for the most part, gentle, balmy, exhilarating, and peculiarly happy in their influence upon the human body; those from the north and east, on the contrary, are violent, raw, and depressing; while the former should be courted by the invalid, the latter should be as sedulously avoided.

It by no means follows that the wind on shore is the same as that upon the ocean. A very slight obstruction, as an intervening range of hills, or indentation of the coast, may leave any particular situation in calm, or subject to the influence of a less grateful wind, while the whole surface of the water is swept by a delightful air from the south or southwest. An example of this may be given in the High-

lands of Navesink, situated a short distance from New York, and immediately behind the light-house on Sandy Hook point. These Highlands, whose sides are covered to the water's edge by a rich growth of vegetation, and are highly picturesque in their effect, are shut off from the southwesterly ocean winds by a small promontory, the effect of which is to render the air in the sheltered localities calm and oppressive, while the sandy point directly in front, and scarcely more than a stone's throw distant, is agitated by a balmy and refreshing breeze. Sachem's Head, and the contiguous town of Guilford, furnishes another illustration of this fact. The promontory termed Sachem's Head, which juts far out into Long Island Sound, is visited almost daily in the summer by the southwest trade wind, which begins about ten in the morning and continues pretty regularly during the day, unless intercepted by some more violent wind. It not unfrequently happens that while this balmy ocean breeze is playing over this promontory and reducing the temperature below 80 deg., the town of Guilford, but a few miles inland, is subject to a land breeze, and exhibits a range of temperature between 90 deg. and 95 deg.

The traveler over the New York and New Haven and New London Railroads, which pursue an easterly course along the Long Island Sound, cannot fail to remark the perceptible difference almost always observed in the temperature after leaving New Haven for the east. However exalted the temperature may have been, or oppressive the condition of the atmosphere between New York and New Haven, he is almost certain to be met by a delightful ocean air from the southwest, a few miles east of New Haven, which accompanies him on his passage to New London. This is due to the configuration of Long Island.

Near New York, the northern shore of Long Island rises into elevations of greater or less extent, but sufficiently so, at most places, to intercept the sweep of wind from the ocean on its southern border. These elevations gradually diminish in an easterly direction, until a point is reached a few miles east of New Haven, where the whole island becomes flat and sandy, and but a few miles in width. This low plateau offers but slight interruption to the progress of the southerly ocean winds, and allows them to play over the surface of the water in the Sound itself, and fan the opposite New England coast.

The islands off the coast of South Carolina, as well as the coast of North Carolina, Virginia, and New Jersey, have a greater or less south and southwestern exposure. Within these limits are found Old Point Comfort, Cape May, and Long Branch, which have great celebrity as sea-side places, and attract large numbers of visitors. Each of these places is subject, however, to the depressing effects of the northeasterly gales; the more southerly points are less affected from this cause than the more northern.

The whole stretch of Long Island on its southern side—which is at present, with but few exceptions, little better than an inhospita-

ble sand bar, drifted up from the waves of the ocean—that portion of the Connecticut coast to which I have alluded east of New Haven, as well as Rhode Island and a part of Massachusetts, enjoy in the highest degree the advantage of exposure to the south and southwest, and are at the same time best protected from the winds from the northeast. Newport, with many disadvantages, not the least of which is the compactness of its houses and their almost total exclusion in the old part of the town from a sea view, enjoys a world-wide reputation as a sea-side residence, for which it is wholly indebted to the salubrity of its air, derived from its sheltered position from the northeast winds on the one side and its free exposure to the southern trade wind upon the other.

It is not the purpose of this paper, however, so much to point out individual localities, as the general principles upon which the sea side climate of the Atlantic coast may be determined, a knowledge of which will enable the practitioner or intelligent traveler to select that locality best adapted to the particular case. As a climate for invalids that is most desirable which furnishes the greatest protection from the depressing northeast winds, and the fullest exposure to those which come heavily laden with health-restoring qualities from the balmy southern ocean, borne along the current of the Gulf Stream. Many sheltered positions may doubtless be found upon the coast south of Long Island, uniting many if not all of the advantages already pointed out, which it is earnestly to be hoped will be discovered and improved. The advantage of sea-side resorts in such positions as to render them available for those whose occupations or means do not permit them to take long journeys, cannot be too highly estimated.

Clinical Teaching and Sectionalism.

Extract from Prof. BRECKNELL'S Lecture in the New Orleans School of Medicine.

The American Medical Association has insisted that a greater amount of hospital instruction is indispensable to the student of medicine. This has been the point more strenuously urged, perhaps, than any other; we think it more than reasonable; we have adopted their views, and we are willing to leave the decision even to our enemies (if we have any,) whether we do not afford greater advantages to our pupils in this respect than any other school in the land. Six, out of ten, of us give *daily* bed-side instruction in the Charity Hospital, and the remaining members give tri-weekly dispensary clinics at our Free Dispensary under this roof, where an average of one hundred patients a week present themselves for treatment. Indeed, such is the proximity of the Charity Hospital, that *all* our patients, numbering hundreds, are right here at our very door, and our pupils do not have to travel miles, or even cross rivers, in their visits to the sick.

Does any other school in the land do this? We desire to draw no invidious distinctions, but we have assumed a virtue, and it is our privilege, our right—or our duty, if you will—to prove that we have it, by all the strength of truth. And yet I will not compare our Institution to those around us, and which may be considered our honorable rivals; but we will travel far from home, and dare a comparison with schools located in the so-called “Medical Metropolis” of our country. We will go with you to Philadelphia, the hitherto fashionable resort of Southern students, and we will have the boldness to place ourselves beside the time-honored University of Pennsylvania, and the gigantic Jefferson. Surely these Institutions will not object to the comparison. The classes of these two schools amount, in the aggregate, to at least nine hundred pupils. What are their facilities for hospital instruction? Every man who has ever pursued the study of Medicine in Philadelphia, knows that the old Pennsylvania Hospital is the grand rallying point—it is the all in all of our Philadelphia brethren, in the way of “hospital advantages.” Yet who does not know that the Pennsylvania is, and always has been, in the hands of the friends of the University, whose Faculty control the clinical advantages, and that the “ticket” furnished gratuitously to students of other schools is a mere nominal privilege? I quote from the late announcements of the University and the Jefferson, to prove that in Philadelphia, so far from the student being afforded facilities for daily bed-side instruction—the very best he can possibly seek—he goes but twice a week to the Pennsylvania Hospital, and there seats himself in a crowded amphitheatre—a room not capable of holding more than one-fourth of the students who flock to that city—to listen to abstract lectures on patients who are brought into the room, it is true, but on whom the sense of sight alone can possibly be brought to bear. The University announcement says:

“The Professor of the Theory and Practice of Medicine, whilst conducting the Course in the University, also lectures, twice a week, on Clinical Medicine in the *Pennsylvania Hospital*, during his term of service as Senior Physician to this Institution.

“The Surgeons of this hospital perform similar valuable Clinical service in connection with the branch of Clinical Surgery.”

The Jefferson announcement says: “The hours of attendance at the Clinic of the College are so arranged as to permit the students to attend every Wednesday and Saturday in the Clinic held at the Pennsylvania Hospital. The Course adopted in that Clinic is the same as at the Clinic of the College. With so large a class in attendance, it is impracticable to visit the sick from bed to bed, and hence, on the days named, the patients are brought into the amphitheatre, and there treated and lectured on.”

So that, in the winter season, when twelve hundred students are collected in Philadelphia—hundreds of them from the South—amphitheatre Clinics, twice a week, at the College and in the Pennsylvania Hospital, constitute the much-vaunted “Clinical advantages” of the “Medical Metropolis” of our country! There are no oppor-

tunities for studying disease at the bed-side, except in the summer, and we all know how few of the twelve hundred are to be found there after the lectures close in the spring.

But what a very farce is this system of amphitheatre Clinics, when compared to daily bed-side observation of disease ! It is all well to introduce surgical cases before students in this way, when you intend to operate, for then it is the sight alone that is to be brought into play, and the amphitheatre affords the best opportunity for the whole class ; but to properly comprehend the true nature of the affection, even in these cases, it is necessary that the student should have seen the patient previously in his bed. What shall we say, then, of the Clinical Lectures in Philadelphia on the Practice of Medicine ? Do they take a patient who is laboring under pneumonia, or pleurisy, or enteritis, or any of the acute and dangerous diseases—do they take him, I say, out of his bed and carry him into an amphitheatre, and there lecture on him ? Or, rather, does not every dictate of humanity, every duty which the physician owes his patient, forbid any such unwarrantable disturbance and exposure ? Or even if such patients were thus rudely served, does the student who listens to the lectures, feel the pulse, or auscult and percuss the chest ? Does he have any opportunity of *practicing* the *art* of his profession ? Why, gentlemen, I have seen a learned professor deliver one of the most interesting lectures imaginable on the sick man, who sat by him in the amphitheatre, and then find that he had been lecturing on the wrong patient.

The truth of the matter is, these amphitheatre clinical lectures, with the exception of their adaptation to surgical operations, and the exhibition of some of the more palpable external phenomena of chronic disease, are the medical humbugs of the age. Imagine the professor, with the cadaver before him in an amphitheatre, demonstrating the *pathological* condition of the organs ! Or imagine him *exhibiting* to the class a case of cataract, or a fistula lachrymalis ! Cannot a man with half an eye perceive that the system is rotten to the very core ?

But leave the gate of the Pennsylvania Hospital, which I have shown to be utterly incapable of accommodating the crowds of students who flock to Philadelphia, and where in that city will you point me to another hospital fitted and devoted to the purposes of the student ? There is not one. The much-vaunted Blockley is the only other establishment which pretends to offer any advantages. It is large and accommodates many patients, but it is at least three miles away from any school, and is across the Schuylkill River ; indeed it is utterly inaccessible to the student who attends lectures. I have tried it, and I speak knowingly.

If, then, as the Jefferson Circular says,—“ with so large a class in attendance, it is impracticable to visit the sick from bed to bed,” and even when driven to their amphitheatres for clinical instruction, we find the crowd in Philadelphia too great, what sane man will compare their advantages for clinical instruction with ours ? There

they have three or four physicians and surgeons, who are all directly or indirectly connected with the University, to deliver amphitheatre clinical lectures to twelve hundred students twice a week; here we have six, out of ten, of the professors in our institution alone in possession of ten or twelve wards, with our class divided amongst them, and visiting the sick every day of the week at the bedside itself; and the lecture hours are so arranged that the student has the privilege of walking this vast sick house during $2\frac{1}{2}$ hours of each day, and may thus make the visit with several different professors every morning. Here there is no occasion for a rush and a squeeze; such is the praiseworthy liberality of the hospital regulations, any and every student, who properly demeans himself, may visit any patient in advance of, or after the teacher, and thus quietly and profitably pursue the investigation of disease. I do not hesitate to assert, then, that New Orleans is this day capable of affording more clinical advantages to a larger number of students than any city in the Union. It will not do for men who have never been amongst us to deny this; all they have to do is to come and look, and they will give it up. I have personally visited all the larger Northern cities, and I speak without fear of successful contradiction.

If there be one amongst you, however, who imagines that by this comparison I desire to detract one iota from the full measure of praise universally accorded to our Philadelphia brethren, let him at once rid himself of the impression. I have not words with which to express the high estimation in which I hold the noble spirits from whom I derived my medical education: no man ever heard me utter one word derogatory to such men as Chapman, Wood, Horner, Gerhard, Norris, Meigs, and a host of others; but the day has arrived when the medical men in the South must awake to the fact that the lecture rooms of these worthy men are crowded to such an excess, that it is no longer a matter of doubt that the Southern student of medicine, who goes North, leaves behind him advantages far greater than he can possibly meet with there; and this is a sufficiently weighty argument in favor of home patronage, without reference to the even more important truism, that the student who intends to practice at the South should be conversant with Southern diseases.

But it has become fashionable, gentlemen, for us Southerners to be charged with "Sectionalism" the moment we open our mouths, either in favor of the advantages which we know we possess, or against the suicidal course pursued by our population, of running to the North for the very things we have amongst ourselves in greater profusion and of better quality. The cry has been sounded long and loudly, and even medical men have now come under the ban. Now, I believe I am possessed of a full share of patriotism, I believe I love my whole country as fondly as an American can or should love; and with all the enthusiasm I may exhibit in favor of my home, I can freely declare that I have no grudge against our neighbors of the North, nor would I willingly detract one iota from the full meed of praise due them in every way; yet such is the fashiona-

ble cant of the day, I believe I shall be charged with sectionalism for the comparison I have drawn.

But what of this? If to love one's own home more dearly than we do our brother's; if to think the woodbine which creeps o'er the door-way of our little cottage blooms forth sweeter fragrance than all others; if to prefer our own glowing, genial Southern sun to the icy breath of Boreas; if to compare our condition with that of others, and, by the comparison, to become more content with our own; if to exert ourselves by all honorable means to excel even our brother in cherishing and developing the resources by which we are surrounded; in fine, if to search out the blessings which a great and a just God has showered on us, and having found them, to labor to enjoy them; if all this be the hated "Sectionalism," then is sectionalism our banner, and it shall be planted on the topmost brick of this edifice, and on it shall be inscribed in letters of living light—Home, Progress, and Reform!

The Supra-Renal Capsules.

Medical practitioners have always occasionally met with a disease affecting the color of the skin and accompanied by extreme emaciation, of the pathology of which they were utterly ignorant. We ourselves had an opportunity of seeing such a case in the wards of Prof. Flint, at the Buffalo Hospital of the Sisters of Charity. In this case, as far as our memory serves us, the patient was exceedingly emaciated; had cough and extensive pulmonary disease, and was affected with a brown discoloration of the skin, which was general, with the exception of spots over the body of dazzling whiteness, which were of irregular shape and varied in size from that of a sixpence to a dollar, or in a few places were even larger. The patient died a few days after his admission into the wards, but no autopsy was made.

A short time after this, we saw a notice of a monograph by Dr. Addison, on "*The supra-renal capsules and their connection with Bronzed Skin.*" Dr. Addison had made a number of post-mortem examinations of patients who were affected with this peculiar discoloration of the integument, which he denominated "*Bronzed Skin,*" and invariably found associated with it a disease or disorganization of the supra-renal capsules, by which their function was entirely abolished. As Addison was the first to point out any connection between bronzed skin and disease of these organs, it has been proposed that the disease shall be called "*Addison's Disease,*" as albumuria connected with organic disease of the kidneys was named after its distinguished discoverer, Dr. Bright. Physiologists, as is well known, have never been able to determine definitely the function of the ductless glands or the blood glands, as they are some-

times called ; which are the spleen, thynoid and thymus glands, mesenteric glands and the supra-renal capsules. These organs have all the anatomical characteristics of ordinary glands, with the exception of ducts ; and, as owing to this, their secretion, if they have any, cannot be subjected to analysis, their *role* in the economy has remained almost unknown. In none of these however, has the obscurity been so great as in the case of the supra-renal capsules. The brilliant experiments of Bernard in regard to the Glucogenic function of the liver, which so surprised and delighted the scientific world, and which made such an advance into the pathology of that hitherto unaccountable disease, diabetes mellitus ; gave a new impulse to the study of the ductless or blood glands ; as by these experiments Bernard had shown that the liver, in addition to its office as a bile secreting organ, formed sugar within its substance, which was given up immediately to the mass of blood without the intervention of an excretory duct : since this was discovered, it has been shown that the liver also produces fat *de novo*, though as much is not known about this function as about the production of sugar. Thus the liver, in addition to being an ordinary gland, possessed of an excretory duct, is in reality a blood gland like the spleen, or supra-renal capsules.

A great proportion of the energy of the investigation into the functions of the ductless glands has been directed towards the spleen, and it is now supposed, and on pretty good foundation, that the spleen and mesenteric glands have an important office in the formation of blood globules. The physiology of the supra-renal capsules however, had still remained buried in its original obscurity.

Upon the appearance of the excellent monograph by Dr. Addison, observers in all parts of the world set themselves to work upon the physiology of the supra-renal capsules ; the paper of Addison having thrown some light on the subject, and seeming indeed to establish some connection between these organs and the formation of pigment, or the regulation of its deposition. The Physiologists who have made known to the world the results of their experiments, are Gratiolet, Brown Sequard, Philipeaux, and Dr. Harley, of University College, London. The experiments of these gentlemen, whose names our readers will recognize as belonging to men eminent in this department, have led them to somewhat different results : we had the pleasure of listening to lectures by Dr. Brown Sequard on this subject a year ago, when he seemed to prove that the supra-renal capsules were essential in the highest degree to life, even more so than the kidneys themselves ; as an animal survived for two or three days after the extirpation of the kidneys, but it lived for a few hours only after the removal of the supra renal capsules. Brown Sequard also showed that animals from whom these organs had been removed, were convulsed and affected with that peculiar nervous phenomenon which is known as "turning," this turning always being in the same direction. He also asserts that death supervenes too rapidly to be due to inflammation of the peritoneum, and indeed,

on examining this membrane after death, no evidences of inflammation are observed. Brown Sequard performed experiments in the presence of his audience, and we had an opportunity of witnessing the phenomena which he described.

The most elaborate and satisfactory paper on this subject which we have yet seen, is from the pen of Dr. Harley, and appeared in the last number of the British and Foreign Medico-Chirurgical Review. This article we have carefully perused, and it was this which led us to make the preceding observations. Thinking this subject to be of great importance to us as Physiologists and Pathologists, we have been thus extended in our remarks, and will give a brief recapitulation of the more important results at which Dr. Harley has arrived ; this we deem the more appropriate, as it is probable that many of our readers do not have an opportunity of seeing the above mentioned periodical.

In anatomical structure, these organs present no very striking points of difference from some of the ordinary secreting glands of the economy ; they are formed of a medullary and cortical substance like the kidneys. There is a peculiarity however in their chemical constitution. "In the beginning of the last year, M. Vulpian communicated to the *Société de Biologie* the discovery of a very peculiar reaction possessed by the supra-renal capsules of vertebrated animals. He found that aqueous solution of iodine brought in contact with the medullary substance gave rise to a beautiful rose color. And further, that the greater portion of oxidizing agents acted like the iodine solution, although in a minor degree. Even the oxygen of the air, under the influence of light, produced the same effect. I have repeated M. Vulpian's experiment on the medullary substance of the supra-renal capsules of sheep with success ; but am equally at a loss with the author to form an opinion as to the nature of the substance which possesses the strange property alluded to. We as yet know so little regarding the nature of color and coloring matter, that it would be futile to attempt to draw any conclusions with regard to the import of the rose colored reaction above spoken of."

"Not being able to separate the coloring matter, M. Vulpian, in concert with M. Cloez, proceeded to extract the 'immediate principles' of the supra-renal bodies ; and these gentlemen have recently communicated to the *Institut de France* as the result of their united labors, the discovery of hipuric and tanrocholic acids in the supra-renal capsules of herbivorous animals. But as these substances have been abundantly found in different parts of the animal body, their discovery in the latter organs, although interesting, unfortunately throws no light upon the nature of their functions."

Dr. Harley has since seen a communication from Prof. Virchow, in which he confirms the observation of M. Vulpian with regard to the rose colored reaction and also mentions that he has found senecine in the medullary substance.

The question arises whether the supra-renal capsules are organs peculiarly essential to foetal existence and development. It was formerly supposed that this was the case, and the arguments in

favor of this idea, were the great relative size of these bodies in the foetus, and their small size in adults. Meckel states that at the third month, the supra-renal capsules and kidneys are of equal size, at the sixth month as 2 to 5, at birth as 1 to 8, and in adult life as 1 to 28. Later observations however, by the author, Brown Sequard, and others, show a different result in the case of some of the mammalia. Dr. Harley has been confined in his observations to the cat, having examined thirteen foetal and six adult capsules. Without giving the figures and calculations, we will give the results at which Dr. Harley has arrived and in which he confirms Ecker, Frey, and others: "The weight of the supra-renal capsules in the kitten at birth is to that of the kidney as 1 to 57.3; and in the adult as 1 to 54.8. But as so few adult capsules and kidneys were employed, it may be perhaps better to take the average of the whole six that were examined, which would then give us the relative weight of three organs in the full grown animal as 1 to 46.49.

"We shall find by a very simple calculation that the kidney was after birth increased 12.35 times in weight, while the supra-renal capsule at the same time has increased 14.87 times in weight. What conclusion are we to draw from this fact? We here see that the supra-renal capsules increase in size, as age advances, at a greater rate than the kidneys. I must here speak with caution however. Small statistics are dangerous data to draw conclusions from, and perhaps a larger number of observations might furnish us with different results."

Thus our readers will see that Ecker, Frey, and Brown Sequard, whose observations are here confirmed by Harley, have developed an exceedingly important fact in relation to the probable comparative activity of the function of the supra-renal capsule, whatever it may be, in foetal and adult life; correcting the doctrines promulgated by Meckel, that these organs in the mammalia diminish after birth, both in relative size and activity of function.

We now come to experiments, bearing directly on the function of the supra-renal capsules. The first experiment was on an adult cat, from which the right capsule was removed. The animal survived nine days after the operation, and on post mortem examination, no cause of death could be discovered.

Another experiment was made on a white cat, from which the capsules were removed. This died in twenty-four hours, and on examination there were found all the indications of peritonitis.

Another experiment was made on a small white coach dog, from which the left capsule was removed. It died on the twelfth day, and on examination, signs of peritonitis were discovered.

An experiment was then made on two Guinea pigs, in one of which the abdomen was opened, and the amount of injury which the parts would suffer by the removal of the supra-renal capsules, was inflicted, the wound sewed up, and the capsules allowed to remain; the fellow, which was of the same age, sex, and development, was then deprived of the capsule on the corresponding side. Both these animals died within twenty-four hours after the operation. The

same experiment was then repeated on two cats. The cat from which the supra-renal capsule (the right,) was removed, lived two days; the other died during the third night. In the abdomens of both, signs of peritonitis were distinctly visible.

The next experiment was made on a bull terrier dog, by removing one of the capsules without applying a ligature to the vessels, the body being euncleated with the fingers. The dog remained in the author's possession for five months, and did not suffer from a day's illness.

The next experiment was one of exceeding interest: it was on a large tom cat, in which, on opening the abdomen, the right capsule was rough and hard as a stone: it was euncleated with the greatest facility. The same operation was repeated on the other side with a similar result. On making a section of the capsules, it was found that a considerable portion of the medullary, as well as of the cortical substance, had become replaced by a calcareous deposit, consisting chiefly of carbonate of lime. The remaining portions of the gland contained so much fibrous tissue, that the normal structure might be said to have entirely disappeared. As the operation on this animal had been performed with the utmost facility, and there had been no hæmorrhage, or any apparent injury done to the surrounding parts, except the tearing through the vessels and nerves, the author felt sanguine of success. His astonishment was great, therefore, when, arriving at the college next morning, he found the cat dead. The post mortem examination revealed nothing, though the blood was searched for signs of phlebitis, examined for crystals, and for the flakes of pigment described by Brown Sequard. As it has been found by Ludwig and Haffer, that section of the splanchnic nerves will kill animals in one or two days, and according to Brown Sequard, mere pricking or cutting of the semi-lunar ganglion proves fatal to rabbits in thirty hours, while division of the sympathetic in the neighborhood of the kidneys causes death in twenty-three hours: in absence of other proof of death, it is probable that it resulted from injury done, in tearing out the capsules, to the ganglionic system of nerves.

The extirpation of the right is more fatal than the removal of the left capsule, as is proved by experiments which the author has cited, but which it is unnecessary for us to state. M. Gratiolet thought that this fact was to be explained by the proximity of the liver, and the occurrence of hepatitis; at first Dr. Harley was of this opinion, but he now very justly concludes that it is due to another cause. The right semi-lunar ganglion, which is much larger than the left, lies (in the dog and cat,) directly beneath the supra-renal capsule; while the smaller left semi-lunar ganglion is placed on the left crus of the diaphragm, and internal to the supra-renal body. Thus it will be immediately seen that a removal of the right capsule will do more mischief to this ganglion, and this injury has been shown by Ludwig, Haffer and Brown Sequard to be sufficient to produce death in a short time.

As it is generally the case in the removal of double organs, that if one be left it becomes hypertrophied from being compelled to perform a double function. Dr. Harley was anxious to observe if this was the case as respects the supra-renal capsules. He accordingly removed the right capsule from a cat, which had made an excellent recovery from the operation of removing the left about a month before. Nothing unusual, however, was observed: on the morning of the third day it died, and on opening the abdomen, two of the lumbar lymphatic glands were observed very much enlarged, and presenting a peculiarly beautiful, semi-transparent, lobular appearance.

Dr. Harley performed another experiment on a piebald rat, with reference to the same point. The right supra-renal capsule was removed, and the animal made a rapid recovery, being in excellent condition at the end of six weeks. The left capsule was then removed, and compared with others taken from animals of the same species and age, in order to ascertain if it had become hypertrophied. But in this, as in the case of the cat, there was no very marked difference in either its size or appearance. From the effects of the latter operation the animal speedily recovered, and ultimately became very fat and healthy looking.

An experiment was made on a white rat, in order to observe if any change would take place in the color of the hair and skin. Both capsules were removed at an interval of nine days. The animal lived sixteen days after the last operation, and during that time the color of the hair and skin was carefully watched, without discovering any alteration, excepting that the neck became denuded of hair, was covered with a luxuriant crop of young hair, about an eighth of an inch long.

The foregoing experiments, which we have presented in as condensed a form as was consistent, cannot fail to strike every one as extremely interesting, and leading to some very important conclusions. Brown Sequard has maintained that it is impossible for an animal to live for more than forty-eight hours at the farthest, after it has been deprived of its supra-renal capsules. The experiments of Dr. Harley fully controvert this statement, and in addition, M. Philipeaux, of Paris, has removed the spleen, supra-renal capsules, and the thyrcid body from the same animal, which afterwards recovered. Dr. Harley brought with him from Paris a young rat, the off-spring of a mother which had been deprived of spleen and supra-renal capsules. Brown Sequard is also probably in the wrong in supposing that the convulsions and turning which followed his experiments, were due to the removal of the supra-renal capsules; as Dr. Harley has not observed it in his experiments, and is confirmed by a private letter from Professor Virchow, who has also failed to notice this phenomenon.

We had the pleasure, from the politeness of Dr. Brown Sequard, of examining certain microscopic crystals, which he invariably found in the blood of animals from which he had removed the supra-renal capsules. These crystals were unlike the ordinary blood crystals,

being pale and needle shaped. Dr. Harley makes no allusion to this occurrence.

The article, of which we have given a *resume*, is not yet concluded, but will be continued in the next number of the British and Foreign Review: it seemed, however, to have treated of certain points with sufficient completeness to make an analysis of it, even now, profitable to our readers; when it is concluded, we will continue our analysis in another number of the Journal. We ourselves had an opportunity of seeing a case, which was probably an example of Addison's disease, before we knew of Addison's monograph; and though they are extremely rare, yet they are liable to occur in the practice of any one; we would earnestly request, that if any of our readers should meet with such a case, that they will send us its history, and if fatal, a minute account of the appearances of the supra-renal capsules. It is in this way only that we can make progress in understanding this new disease, as it is not likely that a sufficient number of cases will come under the observation of a single individual for purposes of analysis.

Finally, we present the conclusions drawn by Dr. Harley from the results of his experiments:

1st. The supra-renal capsules are not solely foetal organs.

2d. The supra-renal capsules are not absolutely essential to life.

3d. The removal of the right is generally more fatal than removal of the left capsule.

4th. That convulsions do not necessarily follow the removal of the capsule.

5th. That the absence of this function (in rats,) is attended neither by great emaciation nor debility.

6th. That when death follows upon the extirpation of the supra-renal bodies, it is in most cases in consequence of the injury done to the neighboring tissues; perhaps most frequently the mutilation of the ganglionic system of nerves.

7th. Absence of the function of the supra-renal bodies is not proved to have any special effect in arresting the transformation of haematin, or in increasing the formation of blood crystals.

8th. The suppression of the supra-renal capsular function is not attended by any increased deposit of pigment in the skin in its appendages (in rats.)

9th. The problem of the connection of bronzed skin and supra-renal capsular disease is more likely to be solved in the dead house than in the physiological laboratory.—*Buffalo Medical Journal*.

F.

Diet in Typhoid Fever.

A paper on the Epidemic of Typhoid Fever in Paris during the months of August and September last, read lately before the *Société Médicale des Hopitaux*, by M. Hervieux, gave rise to a discussion on the question of the proper time and manner of giving nourishment to patients with this disease. The eminence of those who took part in the debate, and the importance of the subject, is our excuse for making a few remarks upon it.

While the medical treatment of typhoid fever has, in common with that of most acute diseases, undergone great changes within the last thirty years, the amount of food, and the manner of giving it, have been also considerably modified. The relative proportions of medicine and food have been reversed. Formerly much medicine was given, and the patient was starved; now he takes but little physic, and is perhaps in danger of eating too much. How much this change is owing to the prevalence of an asthenic type in all diseases of late years, calling for a tonic, supporting, or stimulating treatment, and how much it is to be ascribed to more rational views on the subject, and to that improvement in therapeutics which is the natural consequence of the progress of pathology and other departments of medical science, it is no part of our purpose to inquire. It is enough that such a modification has taken place in the treatment of all diseases, and in every part of the civilized world.

There is no little judgment required to know when to commence giving food to a patient in typhoid fever, and to know what kind of diet to prescribe. All agree that the strength must be supported by suitable nourishment, that the risk is great in withholding food when the patient begins to feel some desire for it, when the tongue begins to clean, and the pulse loses its frequency; but shall we, from the very first, administer nourishment, or shall we wait until the fever "turns," to use a popular expression? If the patient refuses to swallow any food, shall we make him take it, by threats or any other means in our power? To these questions, different practitioners will give different answers, and hence we are not surprised to find a variety of opinions expressed in the discussion in the *Société des Hopitaux*.

According to M. Barth, who introduced the subject, if the diet is too rigid, at first, the stomach is unable, subsequently, to digest anything; if solid food be given too early, there is danger of accidents afterward. We know that the cicatrization of the intestinal ulcerations is often incomplete, even when convalescence has begun, and perforation sometimes occurs as a consequence of the ingestion of too great an amount of food. M. Trousseau insisted upon a sufficient diet during the first three weeks; after that period, he considered that a large amount of nourishment was dangerous. MM. Blache and Barthez both urged the great importance of sustaining the strength in children in the early stages of this disease by suitable nourishment, but the former thought that, during the period of decline of the fever, extreme caution should be observed not to allow

too much food to be taken. M. Barthez, however, asserted that children who were sufficiently nourished during the early stages, did not experience any inordinate appetite in the later periods of the malady, and that such management prevented the occurrence of accidents during convalescence. He found it a good plan to offer the patient beef-tea or milk, from the very beginning of the fever, but to enjoin it after the eighth or tenth day. M. Bouchut recommends ptisans only for the first week; when the rose spots make their appearance, or in cases of prostration, he allows his patients beef-tea; and broths only at the end of the second week, if the tongue is cleaning, and the pulse less frequent.

The effect of too much abstinence during this disease, is sometimes manifested by vomiting, both of the substances swallowed and also of green bile. In such cases, according to M. Legroux, instead of beef-tea or broth, the patients should be allowed roasted or boiled meat; sometimes the vomiting will be allayed by ham, or cheese, which are often craved by the sufferers.

Toward the close of the discussion, M. Cahen, after urging the utility of a nourishing diet in the commencement of this disease, inquired if any gentleman present had ever known any accidents, and if so, what, in consequence of the early administration of food in typhoid fever. No reply being made, M. Cahen said, "those who allow a sufficient amount of nourishment from the commencement of the disease declare unanimously that they have obtained satisfactory results from it; in opposition to your opinions we offer our own, and to our facts you oppose nothing." These views of M. Cahen coincide, we believe, with those generally adopted in this country, certainly in New England. They are similar to those set forth by Dr. Hooker in his valuable Report, on the Diet of the Sick, to the American Medical Association. But Dr. Hooker goes beyond this; he urges the necessity of compelling the patient to take a certain amount of solid food at the usual hour of his meals, with the view to encourage the natural action of the digestive organs "by a cautious continuance or imitation of the regimen customary in health." No nutriment, liquid or solid, is allowed between the meals, and no drink except small quantities of cold water. After the action of the digestive organs is regulated, the nutrition of the system is to be attended to; simple, dry, farinaceous food is the best diet for several days, then meat should be allowed with dinner, and afterward with breakfast. "As the appetite and digestive action are best sustained by frequent change, different kinds of meat, fish, &c., both fresh and salted and variously cooked, should be used successively."

It is a little remarkable that no particular allusion should be made to the use of wine in the treatment of typhoid fever, either in the discussion in the *Société des Hopitaux*, or by Dr. Hooker. Perhaps this omission may be accounted for by the circumstance that wine and other stimulants are sometimes included under the head of medicine. Of its utility, and even necessity, in many cases, no one who has had much experience in this disease can doubt.

Ambrose Paré.

The plate which appears in our present issue is intended to revive the memory of an ancient worthy, whose great merits have been too much overlooked by the British school of writers,* but who, from his originality, learning and potent influence upon the science during the sixteenth century, well deserves the proud title of the "Father of French Surgery." The lithograph is copied from the bronze statue designed by David d'Angers, and erected in his native city, in honor of AMBROSE PARÉ.

The dark clouds of the middle ages were already beginning to break away when Paré was born. The great events of the fifteenth century; the revival of letters; the art of printing; the reformation and the discovery of America had effectually stirred from its very foundations the stagnant world. In the midst of this general uprising of the nations, this universal revival of the arts and sciences, medicine and surgery were not found without their representatives. VESALIUS of Padua turned once more to nature in search of her secrets, and by his dissections of the human body, restored anatomy to its place amongst the sciences, whilst Paré, with his bold conceptions and his entire disregard of the prejudices and superstition of his age, rescued surgery from the hands of the barbers, and elevated it to that position which it now holds as one of the noblest of man's achievements.

To show the immense impetus which surgery received from the labors of Ambrose Paré, we will briefly compare its condition when he first entered its ranks with its advances during his life. The youth who at the age of sixteen years came up to Paris, was apprenticed to a barber surgeon, Guy de Chauliac, who, as some historians say, was the instructor of our hero, for the early days of this great man are shrouded in obscurity. He rises at the first cock crow, sweeps out his master's shop, washes the basins and opens the windows, with the purpose of earning his good will by attracting an early customer. He next goes around to the various houses whose occupants are waiting for his services, and his time until after two o'clock is engaged in waiting in their antechambers, or in curling their perukes, oiling their long locks, or putting them in papers, preparatory to the evening toilette. Towards the night, he takes his book to study, but is constantly interrupted by the ringing of the little bell at the door, announcing a new beard to be shaved, or another shock to be combed. In short, so exacting were the "preceptors" of that day, of their unlucky apprentices, that the teachers of medicine and surgery would give their lectures at four o'clock in the morning, so that they might be enabled to prosecute their studies before "business hours."

The young barber surgeon having struggled through the term of his apprenticeship, against all the obstacles thrown in his way, at

* It is a singular fact, that the name of Ambrose Pare is not to be found in the elaborate pages of the Encyclopedia Britannica.

length offers for his examination, and receives the following degree from the hands of his learned board of "medical examiners:"

"We hereby certify, that by virtue of a certain order given by the chamber of police, dated the 16th day —, and signed —, we have proceeded to the examination of the above named candidate as to the amount of his experience in the condition and cure of bruises, burns, felons and carbuncles; the various methods of blood letting, and the remedies necessary to be employed in the cure of these diseases, and from the answers of the above named, we are satisfied that he is sufficiently informed to cure the above named burns, bruises, felons and carbuncles; all of which we testify to be true. As witness our sign manual this — day of —, in the year one thousand five hundred and forty-five."

This is a specimen of the surgeon's diploma three hundred years ago—this the evidence of scholarship with which Ambrose Paré entered upon his professional career.

It is plain, however, even from the very imperfect account we have of the characteristics of Paré's mind, that he must have been always an original thinker and of a practical common sense order of intellect; and to these qualities we owe the many improvements he introduced into the practice of surgery during his long life. Entering the military staff of the French army during the wars of Francis the First with the Emperor Charles the Fifth, he soon discarded the ridiculous and barbarous customs of his cotemporaries. It is said that in the commencement of his career, after a skirmish, Paré neglected or forgot to pour the boiling oil into the wounds of the combatants, after the custom of the time. He waked up in the night and remembered his dereliction of duty, and earnestly prayed that no ill consequences might result, but the next day, to his surprise, he found that the wounds which he had let alone were doing much better than those he had treated. From that time he changed his practice, and *trusted to nature*. His success was so great, that in a few years he rose to the highest position, and eventually became the surgeon in chief to the three French kings, and achieved for himself a world wide reputation.

This brilliant innovation was soon followed by another, more startling to the prejudiced surgeons of his day, and vastly more valuable in its results. In the first case, Paré exposed the folly of applying boiling oil to the surfaces of recent wounds; but in the second, he also denied the propriety of using the actual cautery in amputations, then universally the practice; and to him modern surgery owes the *practice of tying blood vessels after operations*. These two advances, made by a barber apprentice, transformed military surgery from an atrocious torture to a beneficent and conservative art.

Time and space will not permit us to dilate upon the many brilliant feats performed by Ambrose Paré, some of which are of historical interest. He stood by the death bed of his first royal patron, Henry II, who was killed by a thrust from a lance in the tilt yard;

and he boldly dragged the pike which had transfixed the brain of the Great Guise, whose miraculous recovery after such a terrible accident, added fresh laurels to the fortunate operator. Although a Huguenot by birth and opinion,* he always retained the entire confidence of that bigoted Catholic Catherine de Medicis, and her three sons, whom he faithfully served during their short and unfortunate reigns. His enemies attempted to supplant him in the queen's favor, by charging him with the sudden death of Francis II, whose reign only lasted about eighteen months; but Catherine emphatically denied that her "good Paré" could have been guilty of such a deed.

In 1572, the horrible massacre of St. Bartholomews occurred, but the king, who calmly laid his plans for this wholesale murder, yet claimed the life of his Huguenot surgeon. He sent for Paré and told him he must become a Catholic, but the brave surgeon replied, "Sire, you promised never to ask me to do four things: To enter again into my mother's womb; to be present on the day of battle; to leave your service, or to go to mass." Charles kept him near him during the bloody events of the three days, for, said he, when the priests cried, "Slay him, slay him," "He has saved many lives, his own shall be preserved."

Thus, with increasing honors, we see our true hearted barber surgeon pass through his long career, for he reached the advanced age of eighty years, preserving to the last his hopeful trust in God, his independence of opinion and doctrine, and his world wide charity. "Je t'ai pansé, Dieu te guerisse," was the prayer of his heart, and it was to this faith in the powers of nature, that surgery owes so much. Guided by it, Paré was led to trust to the restorative efforts of the system, and thus abandoned the superstitious customs of his cotemporaries. Let those who daily profit by his wisdom and experience, ever hold in honored recollection old Ambrose Paré, the father of Hippocratic surgery.—*Virginia Med. Journal.*

Parasites of Man.

DR. DAVID F. WEINLAND, favorably known among us by his zoological contributions to the American association for the advancement of science, has issued proposals for a complete treatise on the parasites of man, in a zoological and medical point of view. The work will be published by subscription, in four quarto parts, each comprising eighty pages of text, and two or three plates. The first two parts will treat of helminthology; the third, of the parasitic

* Malgaigne labors to show that Pare was not a professing Huguenot, although of heretic parentage, but we are justified in the assertion, on the authority of the Duke of Sully, and Brantome, his cotemporaries.

insects ; the fourth, of the parasitic plants that grow on man. The price of each part will be \$2 to \$3, according to its expense. The plates will be executed in the finest manner by Mr. Sourel, the artist who lithographed the excellent atlas of professor Agassiz's great work. Dr. Weinland will give many original observations on American Helminths, and describe a new genus of *tænia* peculiar to the negro. His prospectus is accompanied by very cordial recommendations from Dr. Gould and professor Agassiz, which renders it unnecessary for us to do more than call attention to his useful undertaking.—*Virginia Med. Journal*.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

The Practice of Surgery. By JAMES MILLER, F.R.S.E., Surgeon in Ordinary to the Queen for Scotland ; Surgeon in Ordinary to His Royal Highness, Prince Albert, for Scotland ; Professor of Surgery in the University of Edinburgh ; Consulting Surgeon to the Royal Infirmary. Revised by the American Editor, Fourth American, from the last Edinburgh Edition. Illustrated by Three Hundred and sixty-four Engravings on Wood. Philadelphia : Blanchard & Lea, 1857, pp. 682. (For sale by Riley & Co.)

This work, designated by the special title of "Practice," really constitutes the second volume of a continuous exposition of Principles and Practice forming a complete system of Surgery.

This volume has been carried through the press by a professional gentleman of Philadelphia, who has added some additional matter and some additional wood cuts. The additions are distinguished from the text by brackets.

The Medical Student's Vade Mecum. A Compendium of Anatomy, Physiology, Chemistry, Materia Medica, Pharmacy, Surgery, Obstetrics, Practice of Medicine, Diseases of the Skin, etc., etc. By GEORGE MENDENHALL, M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical College of Ohio, Member of the American Medical Association, etc. Fifth Edition, Revised and greatly enlarged, with Two Hundred and twenty-four Illustrations. Philadelphia : Lindsay & Blakiston, 1857, pp. 692.

The rapid sale of former editions of this work has called for the present one, the fifth. In the Preface it is stated that, "the care-

ful revision which the present edition has undergone, makes the work more complete and gives it, the Author trusts, higher claims to a favorable reception."

Students will find this work, what it purports to be, a *Compend* of the Sciences which lie at the foundation of a Medical education.

Although such works often condense to obscurity, they nevertheless have a value in fixing in the student's mind the most important facts and principles which engage his attention during his pupilage. Nor are they without importance to the practitioner. About the time medical men receive their honors from college, a process of oxydation commences. Anatomy and Chemistry and Physiology tarnish first in lustre, then other departments; and at last, what was once a bright student becomes a mere rautinist, an automaton, a fossil, no more qualified to practice medicine in an enlightened manner than to take a journey with Enoch to the future world.

The book before us, therefore, if consulted by practitioners of this class, may have the effect of rescuing them from professional perdition. One thing is certain, Dr. Mendenhall has cleared his skirts, faithfully, and if they persist and wont hear him, the blood be upon their own heads.

The Transactions of the American Medical Association Instituted, 1847, Vol. X. Philadelphia: Printed for the Association. Collins, Printer, 1857.

This volume, including the catalogue of Permanent Members, numbers 674 pages. This, we are assured by the Committee on Publication, is the utmost limit, so far as size is concerned, that can get admission into the Post office for distribution. The committee, therefore, suggest that an eye be kept to the size of future volumes on this account.

The word was, at the close of the last session of the Association, that it had been a failure—that Nashville was too far in the interior, and too difficult of access, to secure a large attendance. The volume of Transactions, although not as large as several previous ones, is nevertheless of respectable size—large enough to contain all the discoveries that have been made in Medicine for the last twenty years. It is speculation, not facts which require so much space in medical books.

The volume before us is made up of a number of reports. These have been alluded to heretofore to some extent, and a portion of Frank Hasting Hamilton's on Deformities after Fractures, has been reprinted in this Journal. The report on the Medical Flora, of Washington Territory, is meritorious, not so much on account of its extent as because it is a *contribution* to science.

Physicians, who wish to keep up with the times—who wish to know what the Doctors of the Nation are doing, should possess themselves of this volume. The Treasurer, Dr. Casper Wister, of Philadelphia, will be happy to wait on all who will inclose the cost of publication.

General Therapeutics and Materia Medica : Adapted for a Text-Book with Indexes of Remedies, and of Diseases and their Remedies. By ROBLEY DUNGLISON, M.D., L. L. D., Prof. Institutes of Medicine in Jefferson Medical College of Philadelphia; Formerly Prof. Materia Medica and Therapeutics in the University of Virginia and Maryland, and in Jefferson Medical College, Philadelphia. With One Hundred and Ninety-three Illustrations. Sixth Edition Revised and Improved. In two volumes. Philadelphia: Blanchard & Lea. 1857.

“The great object of the Author,” of the above work, “was to prepare a work on General Therapeutics and Materia Medica which might aid the Medical student in acquiring the main results of modern observation and reflection, and at the same time be to the Practitioner a trust-worthy book of Reference.”

The nomenclature of the last edition of the Pharmacopia of the United States is adopted by the Author.

It is not necessary to give an elaborate notice of this work. The fact that it has reached its *Sixth* edition, and that the author in the present one has spared no pains in its compilation—has availed himself of the labors of Pereira, of Wood and Bache, Christison, Trousseau and Fidaux, and German authors, would seem to leave no doubt about its merits.

The following is the Author's definition of Therapeutics: “Therapeutics is the branch of Medical Science which comprises the doctrine of the management of disease.”

This is a very good definition; and it is at once seen, that to be a good Therapeutist, the Physician should have a knowledge of every branch of medicine. It may be added, too, that he should have

discrimination developed to its utmost extent. To be a good Therapeutist indeed, requires not only great natural powers, but culture of the very first order.

When a natural movement of the organism is interrupted in any way, the first inquiry is into the nature of the *cause*, the next into the character and extent of the derangement. Here a variety of sciences come into requisition. Anatomy and Histology for structure, Physiology for what are natural movements, Pathology for changes, on a structure and motion, and Therapeutics for the best method of managing the disease.

Upon the last, the best method of managing disease, there has always been diversity of opinion, and yet this after all, is the great object of medicine. It matters not how much any one knows of the physical sciences or of literature, unless he can make his knowledge subservient to the removal of disease it amounts to nothing—so far as the profession of medicine is concerned. Therapeutics, indeed, is the touch-stone of medical skill. Although it has served as the basis of the various sects, that from time to time have arisen in medicine, it has also served as the test of their validity or weakness by which they have been overthrown. Measured by their efficiency in curing disease, they have, one after another, disappeared from public attention, leaving their Authors in the quiet and peaceable possession of reputations for humbuggery.

A Practical Treatise on Diseases of Children. By I. FORSYTH MEIGS, M.D., Fellow of the College of Physicians of Philadelphia, Member of the American Philosophical Society, and of the Academy of Natural Sciences of Philadelphia. Third Edition, Carefully Revised. Philadelphia: Lindsay & Blakiston. 1858.

The first edition of this work formed one of a series entitled "The Medical and Practitioner's and Student's Library." The work is now withdrawn from that series and appears as a distinct and separate publication.

The Author states in the Preface that he has endeavored to make this work more methodical and precise than those heretofore published in the country.

"The classification of diseases according to the systems which they affect has been adopted as the most convenient."

The second edition was improved by the addition of thirty pages, in the form of an Essay on the Clinical examination of children.

The articles on Croup, Bronchitis and Pneumonia, have been entirely rewritten. The article on scarlet fever has also been re-written, and the results of a little over one hundred new cases have been added to those contained in the First edition. The present, the *Third*, edition has been carefully prepared.

The Introductory Essay on the Clinical Examination of Children contains quite a number of excellent suggestions. The Author states, "So great indeed are the difficulties encountered by some practitioners who enter on this branch of the profession without proper preliminary preparation, that they never overcome them, but to use the words of Dr. West, 'grow satisfied with their ignorance, and will then with the greatest gravity assure you, that the attempt to understand these affections is useless.'"

Among the causes which embarrass the physician in the diagnosis are the absence of speech and the agitation occasioned by the presence of a stranger in the sick room. Speech is one of our most available means in ferreting out the troubles of adults. The absence of it, however, in children occasions perhaps less inconvenience, than the violent disturbance, both physical and moral, of the child, its fright, agitation and cries.

"To avoid the difficulties just noticed it is always useful, if not absolutely necessary, to conduct certain portions of the examination whilst the child is calm and quiet, and certain other portions whilst it is disturbed and agitated." * * * By the period of calm is meant a condition of total quiescence, in which the child is undisturbed either by internal or external causes of irritation. This condition is best found in *sleep*. This distinction of the examination into two periods or stages is one of the utmost importance in a practical point of view, and should never be forgotten by the physician during his clinical observation of the various symptoms the patient may present."

Materia Medica or Pharmacology and Therapeutics. By WILLIAM TULLY, M.D., Springfield, Mass. Published by Jefferson Church, M.D., 1858; vol. 1, Parts 1 and 2.

The name of Dr. Tully has been familiar for many years, as a popular teacher of medicine, and as one of the most able, erudite and thoroughly scientific scholars in our profession. His experi-

ence, acquired in the course of fifty years of practice and teaching ; his numerous places of residence in different sections of the country, and his consequent familiarity with all the varied forms of disease, whether depending upon epidemical influences or those of climate ; and his intimate acquaintance with the medicinal powers and virtues of our indigenous plants, which he has spared neither time, labor or expense to definitely determine for himself by actual and careful experiments, together with his varied attainments in, and knowledge of the concomitant sciences ; render him peculiarly qualified to edit a comprehensive, systematic and scientific work on MATERIA MEDICA and THERAPEUTICS.

The work is issued in pamphlet form, monthly, and the first volume is just complete. The publisher proposes to issue the second volume in the same manner, as soon as a sufficient number of subscribers is obtained to cover the expense of publication. Although the second volume, treating of individual articles, their uses and therapeutical applications, will necessarily be of more practical value to the physician, yet the first volume, now offered for sale, makes a complete work of itself, and, on account of the introduction of many new terms in the classification, becomes, to a great extent, essential to a ready and perfect understanding of the second. The "institutes of materia medica," or the introduction, covers all the ground occupied by the celebrated treatise of Headland, though its teachings are essentially different in many respects. The classes are the same in number as the separate and distinct medicinal powers, so far ascertained ; the name of each class being pure LATINIZED GREEK, and expressing by its signification the peculiar medicinal action of the individual articles belonging to that class, thus following the law for the derivation of similar technical terms which obtains in the other SCIENCES. Whatever opinions may be entertained of the soundness of the principles inculcated by Dr. Tully will not destroy the value of the work. Its striking peculiarity is its tendency to excite others to think, reason and investigate for themselves ; to vary their observations and to gain truer experience, both as to the effects of remedies and to many points in pathology ; a characteristic of great value, and one hardly possessed to the same extent by any work extant. For originality of thought, and modes of reasoning ; for its truly scientific character ; for the research and learning it displays ; for the example it sets of accuracy and precision in the use of language, so much neglected by medical writers generally, yet so im-

portant to convey medical truth or medical opinion even, no *American* work, at least, can compare with it. In short, the work, thus far, answers all the high expectations the prospectus tended to raise, and, in our opinion, is just what the profession greatly needs.

We are sorry to learn that the enterprising and accomplished publisher, Dr. Church, has not, as yet, been remunerated by the profession in this, his attempt to benefit them, and that the publication of the second volume is endangered by the want of a *reliable* subscription list; and earnestly hope our readers will subscribe for the work, and thus enable the publisher to complete it according to the original plan and design of the author. Communications should be addressed to J. Church, M.D., Springfield, Mass.

H.

PART FOURTH.

EDITORIAL AND MISCELLANY.

Commencement of Starling Medical College.

The Annual Commencement of Starling Medical College was held on the evening of the 2d inst. The Commencement address was delivered by Hon. R. WARDEN, and the Valedictory by Prof. J. W. HAMILTON.

The following is a list of the names of the graduating class in Starling Medical College for the session ending March 2d, 1858, together with the titles of Theses submitted:

<i>Names.</i>	<i>Subjects.</i>
S. DAY, ...	Chronic Gastritis.
O. M. HAWORTH, ...	Typhoid Fever.
JOHN HILL, ...	Spermatorrhœa.
D. W. MAKENZIE, ...	Theory of Conception.
R. H. COOK, ...	Small Pox.
D. V. RANNELLS, ...	Typhoid Fever.
RUFUS RANDALL, ...	Intermittent Fever.
O. H. WHITFORD, ...	The circulation of the Blood.
ALLEN WHITE, ...	Crural Phlebitis.
DAVID RIDENOUR, ...	Duties of the Accoucher in Natural Labor.

The Degree of Doctor of Medicine was also conferred upon Hon. B. C. BLACKBURN, of Tuscarawas Co., Ohio, and also upon Hon. J. M. STOUT, of Monroe Co., O.

It is certainly a very pleasant duty to be able to certify to the competency of those who, for the first time, are about to undertake the responsibilities of medical practice. But it is fearful to look at what is implied. A good education and respectable attainments in the elementary branches are of course understood to exist. Much more, however, is necessary, in order to be a physician. Discipline of a high order of the intellectual and moral faculties is required. Perhaps there is no avocation that demands more in the way of intellectual and moral culture than medicine. No case to be treated, but what involves a variety of contingencies—no case that can be regarded as positively unconnected with dangerous or fatal results. Phenomena present themselves every day, the import of which calls in play the severest powers of analysis, and this can only be hoped for by educating the special senses, that no fact, circumstance or event may escape observation; by guarding well the principle of faith as to the accounts given of things by others; by daily discipline of the reasoning faculties so as to avoid the fallacies that so frequently complicate this mode of obtaining knowledge.

Many have supposed that there is something intuitive in the facility with which some physicians recognise the important points, pathological and therapeutical, of a case. The process is called *tact* and there may be something in it—much less, however, than is generally supposed. Those who are really gifted in this way, if analysed, will be found to have minds of cultivation, and highly executive in character.

The great matter that a young man should constantly bear in mind, is that his success in his profession will, after all, depend on his attainments and the facility he possesses in making these available in the work of curing disease.

It gives us great pleasure to state that the *Alumni* of Starling College, as a general rule, are distinguishing themselves, and taking a front rank, wherever they are located, as Practitioners of Medicine and Surgery. “*Qui non proficit, deficit.*”

BIRTHS, DEATHS AND MARRIAGES IN THE STATE OF OHIO FOR THE YEAR 1857.—We have just received the Report of the Secretary of State to the Legislature relative to the registration of Births, Deaths and Marriages in the State for the past year.

All reports of this kind must necessarily be imperfect and unsatisfactory for a time. Those to whom the execution of a law of this kind is committed fail for a while in getting perfect returns. But as the parties involved become more acquainted with the nature and importance of their duties, and the details of the law are perfected, the results will become reliable. What statistical inquiries of more importance than those which ascertain the number of deaths in particular districts, examine the nature of fatal diseases and seek by comparing the conditions under which the various forms of disease flourish; to arm the State with power to save? After a law of the kind has been in operation for a time, it will be found to have also created in this, as similar laws have done in other countries, data that will serve as an invaluable bases of legal inquiries. By such laws the identity and rights of individuals who have lived in times anterior may be traced out with a degree of certainty often attainable in no other way.

We could have wished to have seen the Report before us more complete—the tables are not footed up, nor are the general results declared.

A NEW MEDICAL JOURNAL AT LOUISVILLE.—Rumor has it, that a new Journal is about to be started at Louisville, Ky., by Dr. D. Yandell. We know of no one more competent to such an undertaking. Dr. Y.'s education and his professional associations will enable him, we should think, to make a journal not only instructive but eminently attractive. We should be very happy to welcome the contemplated work to our "Exchange list."

NEW JOURNAL OF PHYSIOLOGY.—Dr. BROWN SEQUARD has sent us the prospectus of a journal of physiology, of which he is to be the principal editor, and which is to be published quarterly, on the 1st of January, April, July, and October—each number to contain from one hundred and sixty to two hundred pages. He is to be assisted in his enterprise by Drs. Ch. Robin, Ch. Rouget, and Tholozan, &c.

His journal, in addition to pure physiology, will embrace—1. Or-

ganic chemistry, hygiene, toxicology, and legal medicine, in their relations to physiology. 2. Descriptive anatomy, comparative anatomy, teratology, and normal and pathological histology, so far as they illustrate physiology. 3. The applications of physiology to the practice of medicine, surgery and obstetrics.

The subscription will be 18 francs, at Paris, payable in advance.

We invite the attention of the profession in this country to this Journal. It may be obtained through I. Pennington & Son, of Philadelphia.

THE WESTERN LANCET AND OBSERVER have been consolidated, and henceforth the issue is to be called "The Cincinnati Lancet and Observer." Dr. Blackman, the former editor of the Lancet, retires not at all pleased with the pecuniary support which the Lancet received while under his charge. Such treatment was very far from being deserved. Dr. Blackman made an able editor. The Lancet, while under his charge, was among our most welcome visitors. It was always filled with matter, which whether measured by taste or utility, would compare favorably with the best journals of the country.

When will subscribers to Medical Journals learn to appreciate the maxim: "*don't muzzle the ox which tramps out the corn!*"

Although retired from the onerous duties, annoyances, etc., of the editor, we shall feel disappointed if Dr. Blackman does not continue, in another character, to still wield his pen.

"VEXED QUESTIONS IN ETHICS."—Under the above caption the Cincinnati Lancet & Observer has some remarks on the McClintock affair, the Journals, etc.

The Editor seems to have sharpened his pen for a general onslaught on all the Journals that have not coincided with him in regard to all that he has said on the subject. He says

"When the Editors of some Journals are making vapid and sickly excuses for high unprofessional conduct, it is refreshing to find the truly conservative, accomplished and distinguished gentlemen here and there speaking out the true doctrines that should prevail."

How is this? Has any of the Journals been engaged in offering excuses for the conduct of Dr. McC? Our Journal has not. All, as far as we have read, are unanimous in condemning the act of Dr. McC. Dr. McC. now condemns the act himself.

The diversity of opinions among the Journals, is in relation to another matter: Should a medical man, after he has committed a sin against our Code of Ethics, and made full confession thereof, and gave the proper evidence of repentance, be *forgiven* by his brethren; or should he be proscribed and denounced forever as having committed an *unpardonable* sin? *Christianity* is on one side of this question, as we understand it; and we simply stated that fact.

We want no controversy with the Editor of the *Lancet & Observer* on this or any other subject. The disposition he has always manifested for the purity of the profession is very commendable. His punishment, however, of offenders is too *Draconic* to suit our taste—that's all.

Wythe's Pocket Dose Book. *Branstan's Hand-book of Practical Receipts.*

The above works, got up in very neat and durable style by Lindsay & Blakiston, Philadelphia, are for sale in this city at the House of Randall & Aston.

Pacific Medical and Surgical Journal. Edited by JNO. B. TRASK, M.D., and DAVID WOOSTER, M.D. San Francisco. Monthly, at *Five Dollars* a year.

It gives us pleasure to hail the appearance of another Medical Journal from our possessions on the extreme West. The Journals have now spanned the continent. Wherever civilization goes they go, and although poorly rewarded, they have nevertheless the consolation of the "Good Samaritan"—and of course also his reward in the world to come.

It is only about ten years since California became a portion of the American Confederacy. She is not only now a State of the first class, but from her mineral resources has become the Ophir of the American people. The learned professions, too, are represented there by gentlemen of scientific and literary attainments unsurpassed by those of older States. The Physicians, from what we know of

them, represent the learning and skill of the most renowned seats of medical and surgical science in each hemisphere.

Transactions of the Belmont Medical Society for 1856-7. Bridgeport, Ohio.

The Transactions commence with an essay on *Mind and Insanity*, by Dr. G. Affleck, of Bridgeport. The papers which follow are, by E. Gaston, M. D., on *Veratrum Viride*; Reports of a case of *Amputation*, by Drs. Campbell, Estep and McBane; Report on the *Improvement of Medical Science*, by Wm. Estep, M.D., Chairman; and an account of the *Trial of Mary Henderson for the Murder of her own child*, by Wm. Estep, M.D., Loydsville, O.

These papers are very creditable to the gentlemen with whose names they stand connected. They show that the Belmont Society is progressive; and in the right direction for useful results.

DEATH OF DR. PARSONS. The following notice in regard to the late Dr. Samuel Parsons we find in one of our city newspapers—the *Ohio State Journal*. It was written by one who seems to have been intimately acquainted with the deceased, and that too for a long time.

Dr. Parsons deserves a notice more strictly professional. He was one of the pioneers that survived the privations and dangers of nearly half a century's service in the profession. He possessed many traits of character that would be instructive and useful to others.

The Profession of the City met and passed Resolutions expressive of their respect for the memory of the deceased, a copy of which will be found below.—EDITOR.

“**OBITUARY.**—Departed this life on Wednesday, the 30th ult., Dr. SAMUEL PARSONS, in the seventy second year of his age.

The deceased was a native of the town of Reading in the State of Connecticut, and was born July 30, 1786.

The ancestors of Dr. Parsons were of English origin, and immigrated to this country about the middle of the eighteenth century. His father was of that respectable and intelligent class in new England, who are the proprietors and cultivators of the soil, and from whom have descended many of the most enterprising, virtuous and eminent men of our country.

“The writer of this brief notice knows but little of the parentage or early life of the deceased ; but from his admirable moral character and highly cultivated mind, he feels authorized to say that Dr. Parsons must have received the most careful parental supervision and judicious training. It is, however, known that he received an academic education in the town of Litchfield, in his native State. That he was a diligent student may be inferred from the fact that he was an accurate classical scholar, and, in early life, had acquired an intimate knowledge of the various sciences immediately connected with his subsequent profession. His mind, naturally orderly and exact, led him also to the study of mathematics, in which difficult science he had attained great proficiency, and when a youth, had mastered some of its higher branches.

“In 1809, at the age of about twenty-three, he was admitted to the practice of Medicine, and, leaving his native State, settled in Millersburgh, an inconsiderable village in Pennsylvania.—This position was unfavorable to a mind conscious of its own powers, and desirous of extended usefulness. It afforded a better opportunity for study than for practice, and his attention was directed to the West, which promised a larger field for the gratification of his laudable ambition to be useful to his fellow men. He left Millersburgh, and arrived in Franklinton, in this county, on the first day of the year, 1811. The location was equally fortunate for the young physician and the inhabitants. Here he entered upon the business of life with unclouded prospects of success. His talents were soon brought into exercise, and his professional skill universally acknowledged. At the commencement of his practice, he was without a competitor, which would have been a dangerous position for one less determined to climb the rugged and difficult ascent to professional eminence. This circumstance in him produced no relaxation of efforts. Without the stimulus of competition he was prepared to tax his powers to their utmost.

“His principal capital consisted in a very complete surgical apparatus, a large stock of carefully selected drugs and medicines, and a small professional library of the more approved authors of those days. With his books he exclusively passed his time when not engaged in professional duties. He participated in none of the amusements common to persons of his age. At that early period there were indeed few social advantages amongst us.

“Then, more than at the present time, the two great departments of medical science were blended in the same practitioner. Every physician was supposed to be a surgeon, and every surgeon a physician, and combined with both was the practice of what was then known of dentistry. There was still another interesting department of medical practice in which Dr. Parsons became pre-eminently distinguished for his skill and success. Indeed in the various branches, he had few equals and no superiors.

The practitioner was his own apothecary, and never set out on a visit to a patient without a case of surgical instruments and a great variety of medicines. Thus, he was provided not only for the special call, but for others which might be required in his distant journeyings. At the time Dr. Parsons commenced practice, there was not a pleasure carriage of any sort in the country, and for a reason then obvious—the state of the roads being such as not to admit of the use of such conveyances. Neither present nor future generations, even with the help of the imagination, can conceive the hardships and labors of a physician in full practice at that early period. The roads most traveled were deep and miry, and not unfrequently impassable. Nor was it a thing by any means unusual to be obliged to thread at midnight a mere bridle path for many miles, or, with the assistance of a guide, to penetrate through a trackless forest. Deep streams were often to be forded, and sometimes swam to reach the residence of the sufferer.

In 1815, three years after the seat of government was permanently established, Dr. Parsons removed to Columbus, where he has ever since resided.

Dr. Parsons, during the long course of his practice, never declined a call to the bed of sickness because he required rest and repose; nor stopped to calculate the difficulties to be encountered in reaching his patient, or the chances of loss or gain to himself. Although of rather a delicate constitution, yet by strict temperance and well regulated habits, and more than these, by an enlarged philanthropy, he was enabled to endure privations and hardships of which few were capable. He has been known, in his practice, not to have enjoyed uninterrupted repose in his bed for more than eighty consecutive nights.

He was deservedly called, not only the physician of the poor, but their friend. In the long period of his extensive practice he was

never known to give the smallest preference to his patients on account of wealth or elevated position.

Dr. Parsons was peculiarly fitted by nature to adorn his noble profession. He was endowed with a remarkably vigorous mind, quick and clear perceptions, great decision and firmness of purpose and unwearied assiduity.

Like every other scientific and properly prepared physician, he was sometimes mortified at the preference given by the uninformed to arrogant charlatans; but even this, from the amiability of his nature, was treated with pity rather than resentment. He was often, by circumstances, compelled to undertake surgical operations; but practice in this branch of medical science was irksome to him, and, in the latter years of his professional life, he declined it as far as possible.

When we were visited with that mysterious and appalling pestilence, the cholera, he maintained his position, while some of his brethren fled in terror from the presence of the awful scourge. It is generally believed that, on this most trying occasion, he received the seeds of that disease which finally terminated his useful life. When the pestilence subsided, he found himself attacked with *bronchitis*, which became chronic and could never be eradicated. He several times sought relief in a milder climate; but the death malady still clung to its victim.

In 1845, finding his physical powers giving way under the disease, he retired from active practice, although frequently afterwards called in consultation by the most eminent of the profession.

During his long continued disease, his cheerfulness never forsook him, and his interest in the affairs of his country and in humanity remained to the last.

On the 30th day of December, a little after mid-day, Dr. Parsons died as he had lived, at peace with all mankind, and, so far as the friends who surrounded his death bed could judge, at peace with his God.

Without his solicitation, Dr. Parsons received the degree of Doctor of Medicine from the Medical College of Ohio.

He neither sought nor declined office. In 1813, he was appointed resident surgeon in the North Western army, and continued in that office until nearly the close of the war. He was several times appointed a director of the benevolent institutions of the State, and the affairs of some of them were reduced to order by his exertions.

In 1843, he was elected a Representative to the General Assembly, and his course, while a member of that body, was marked by integrity and independence, and an ardent desire to ameliorate our social institutions. As a public speaker he was clear and logical, and his perfect candor and sincerity gave him a great influence with that body. Although Dr. Parsons was grave and dignified in his deportment, he was ever affable and kind in his intercourse with every class of society.

In sentiments and manners he was most remarkably refined. No impure or trifling expression ever escaped from his lips. No wound was ever intentionally inflicted by him on any human being. In business transactions he was exact, but most scrupulously just. Without disparagement to others, it may be safely said his benefactions were as numerous and extensive as those of any citizen among his survivors. No small portion of the labors of his life was gratuitous to the sick and the needy. Nor was this all. No medicine, however expensive, was withheld from an indigent sufferer when there was the smallest chance of its affording alleviation or relief. In a vast number of cases, known to few except the recipients or their friends, he supplied, from his own means, articles necessary to comfort, and as an aid to restoration to health. In the distribution of alms, he steadily followed the divine precept which insures the higher reward. They were not bestowed to be seen of men. His benevolence to his patients extended beyond this life. His executors are expressly directed to release claims for professional services in case payment should be found inconvenient or burdensome.

The moral character of the deceased was without stain or blemish. His public and private duties were performed with the same exactness and conscientiousness. He was the kind and affectionate son, brother, husband, father, friend. A more pure, virtuous and useful man has seldom lived. It is not known that he has left an enemy upon earth.

DEATH OF DR. SAMUEL PARSONS.—At a meeting of the Physicians of this city, on motion, Dr. WM. M. AWL was called to the Chair, and Dr. R. N. BARR appointed Secretary. On motion, a committee of five, consisting of Drs. W. M. Awl, R. Hills, J. B. Thompson, G. J. Sachse and S. M. Smith, were appointed to draft resolutions expressive of the sense of the meeting—when the following report was offered and adopted :

REPORT.

Whereas, in the all-wise dispensings of a holy and merciful God, our friend and father in the profession, Dr. SAMUEL PARSONS, has been called away from us; *and, whereas*, from his long connection with our profession, his faithfulness and kindness in the ministrations of his Art, under all the toils and self-denyings of a pioneer life, and all the ties that bound him to a community in which he had lived for near half a century, and for unsullied probity of character, in all the relations of citizen and friend, it becomes us to record his many virtues; therefore,

Resolved, That in the death of Dr. SAMUEL PARSONS, we mourn the loss of a father in our ranks, one who faithfully illustrated its noble and generous characteristics in the midst of the trials and difficulties of an early western practice; who, in the advances of a higher civilization, maintained the same honorable eminence, who finally retired from the practice to enjoy the quiet of a ripe old age, and a justly earned affluence, in the midst of a community where he was respected and beloved, and gratefully remembered.

Resolved, That his purity of morals, domestic habits, and faithful discharge of every public trust committed to his hands, add a richer value to his professional worth.

Resolved, That we tender to the bereaved friends our sincere sympathy in their irreparable loss; and that we will join them in paying the last sad service of the living to the dead.

Resolved, That a copy of the foregoing resolutions be transmitted to the family, and one furnished to each of the city papers.

R. N. BARR, Sec'y.

Columbus, Jan. 2, 1858.

DR. LIVINGSTONE'S TRAVELS.—Our leading article in this No. is a very brief digest of Dr. Livingstone's Travels in South Africa. The book interested us very much, and we, as a consequence, supposed an account of it would please many of our readers. It is written in clever style, and with every appearance of truthfulness. The Author went to Africa as a Missionary to teach the natives the Christian Religion. He went, we suppose, in obedience to the command, "Go ye out into the world and preach my Gospel to every creature." After being in the country a number of years, and mixing freely with the natives, he found that in order to carry out the prime purposes of his mission, the natives required to be somewhat civilized, to be elevated to a certain level, before they could be made to appreciate and understand the Religion that suits the white race, the religion that seems only to take where there is a pretty good kind of mental soil. Seeing, therefore, that the elevation of the interior

tribes could only be brought about by opening up an intercourse commercial and social between them and European nations, Dr. L. commenced the work of exploration, in order to see what were the natural and most available outlets of the continent. He traveled from the Cape Colony to the centre of the interior near Lake Ngami; thence to the Western coast at Loanda; thence across the continent in an oblique direction, to the termination of the Zambesi river on the Eastern coast.

The descriptions of what he saw are in the general very satisfactory. His knowledge of natural history was sufficient to enable him to give a general outline of what he observed in botany, zoology, geology, etc. His contributions to ethnology are not calculated to change what has been advanced in regard to the negro race by those who have made the subject a study. The physical, moral and intellectual peculiarities of this race appear to have been pretty well understood, and its *status* defined by ethnographers. What he saw of a mixture of the white and black races confirm the general impression that it is attended with deterioration. The negro is improved in intellect, but loses his physical energy. The European is dwarfed in both. Although constantly engaged in war with each other, by which it might be supposed that a higher order of courage would be cultivated, such, Dr. Livingstone says, is not by any means the case. The negro, he remarks, is essentially cowardly. He attributes his success in making his way across the continent to the circumstance that he made the natives believe that he was not afraid of them. Knuckling to their demands, or being terrified by threatening aspects would, he thinks, have proved fatal to him and his party, in a number of instances.

The state of medicine in Africa is on a par with other things. Empyricism and superstition exist here in purity. Have certain results followed the administration of a drug? If so, the relation of cause and effect is at once established. The doctor is held as a consequence responsible for the results following his medicine. If they are favorable, all is right; if unfavorable, and the patient dies, the doctor often does too. *African Fever* seems to be the staple disease of the country. The natives in all the alluvial districts are affected with it, and many of them by it annually destroyed. This, or some thing like it, seems to be mortiferous to the white man.

Dr. Livingstone's contributions to geography are among the most valuable connected with his travels. He has unfolded "South Central Africa," and has shown that instead of its being a sterile, moun-

tainous region, it is a great plateau, made up of forest and natural meadows, well watered and exceedingly fertile, something like what we have, and of which we are so proud, in the Mississippi valley.

As it regards the practicability of S. Africa ever becoming a theatre for the enterprises of any department of the white race, time can alone determine. Its fine rich soil, its noble rivers, are inviting; but the climate is far from genial to white blood; it is, indeed, destructive, if the most trustworthy observations continued for centuries are to be credited.

The profession of medicine has great reason to be proud of Dr. L. He has told us what we did not know before. His example, too, is instructive. It shows what may be accomplished by energy of character and purity of purpose, even in the absence of uncommon natural gifts.

Duration of Cancer.—A case of some interest presented itself at the Cancer Hospital on the 25th of August, in the person of a female, aged seventy-four years, the subject of cancer of the left breast for twelve years. She had been a patient at this hospital since its foundation, with the exception of the last three years, during which time she had been in good health. She came to show an ulcerated tuberculous mass in the same breast, the size of a small pear; otherwise the disease had dried up and disappeared. She still looked a hale and hearty old woman.—*Lancet*, Sept. 5, 1857.

IODINE IN OBSTINATE VOMITING OF PREGNANCY.—M. EULENBERG strongly recommends tincture of iodine for obstinate vomiting. Other practitioners have tried it with varying results; but according to the experience of M. M. Becquerel and Buisson, the tincture acts most advantageously when combined with iod. of pot. The following is M. Buisson's formula: Tr. iod. ʒj; Iod. pot. ʒiiss; Aq. dest. ʒxxx. A tablespoonful is placed in a glass of sugared water, and this is to be divided into three doses, to be taken during the day.—*Med. Times and Gaz.*

Cancer in a Woman eighty years of age.—We saw, on the 6th of October, a woman, eighty years of age, at the Cancer Hospital, with well-marked scirrhus of the left breast, which appeared about a year ago. Notwithstanding her great age, she had the blooming, healthy

cheeks of a country girl of eighteen; her general health was perfect, and under the use of tonic remedies, and soap-and-lead plaster spread on leather, with a little camphor, the cancer has diminished in size, and its progress is completely arrested for the present. This is by no means an exceptional case of the arrest of the progress of cancer at this hospital; for we have observed several in whom the disease has been kept stationary for years, with no other inconvenience than the presence of the tumour in the breast, and the knowledge on the part of the patient that it was still there. The soap-and-lead plaster is one of the principal agents in effecting this desirable object; the lead appears to possess some peculiar sedative influence on the disease.—*Lancet*, Oct. 24, 1857.

DISLOCATION OF THE HEAD OF THE FEMUR ON THE PUBIS DURING THE ACT OF SWIMMING.—C. W——, aged seventeen, a sailor, while swimming in the Serpentine, and in the act of “striking out,” felt a catch in the right groin, which he thought was the cramp. He immediately made for shore. On landing, he found that he limped in his gait. He could walk a little the next day, but on the following day he was unable to walk, feeling his knee, as it were, drawn up. He was admitted into St. Mary’s Hospital, under the care of Mr. Ure. He complained of great pain at the upper and inner part of the right thigh, aggravated on any attempt to move the limb; there was a fulness in the above situation. He also complained of pain referred to the outer side of the knee. Soothing means were employed to relieve the pain. Mr. Ure, after a careful examination, ascertained there was dislocation of the hip-joint forwards, upon the pubis. The least pressure on the ilio-pubal region gave great pain. The right buttock was flattened; there was a notable depression in the situation of the trochanter, instead of the usual prominence; the limb was shortened; the thigh and leg were both in a state of extension, the knee and foot rather everted.

On the 27th of August, after the patient was rendered insensible by chloroform, Mr. Ure flexed the thigh towards the pelvis, and then rotated it outwards, in doing which he felt a distant snap. The luxation was thus reduced, and the limb restored to its normal condition. To keep the joint quiet, a long splint was directed to be applied along the outer side of the limb.

Aug. 28th.—The patient had been free from all pain since five p. m. yesterday, and had continued perfectly comfortable up to September 3d.

The displacement was obviously due to the circumstance of the body being suddenly thrown backwards while the limb was on the full stretch during the act of “striking out.” The pain was, no doubt, caused by the strain of the crural nerve, which lies over the neck of the bone. The shortening of the limb was owing to the elevated position of the head of the femur; the eversion, to the drawing action of the quadratus, obturator internus, &c., muscles. In this variety of dislocation, the head of the bone will be found either to have raised up the ilio-psoas muscles, or lodged behind the blood vessels. The round ligament, according to Hyrtl, is torn.

The patient left the hospital quite well in the first week of October.—*Lancet*, Nov. 7, 1857.

EXCISION OF THE ELBOW JOINT EIGHTEEN YEARS AGO.—Some of the most instructive cases we meet with in the hospitals are those in which patients who have had operations performed long ago again present themselves. The other day Mr. Cock operated again upon a man whose elbow had been excised eighteen years ago by the late Mr. Key, on account of strumous disease. The man, who is now aged 45, and in good health, stated that he had enjoyed throughout the whole interval and until quite lately very excellent use of the limb. He had been employed as a letter-sorter. The motion had never been free, and latterly he had been attempting to work with it in a new position, and one which gave pain. As the result of this an abscess had formed, and there was now evidence of the existence of diseased bone. Mr. Cock removed some small necrosed fragments from the end of the humerus, and cut away others with the bone forceps. There is every prospect that the part will heal soundly, and that the triumph of conservative surgery will thus be further prolonged.—*Med. Times and Gaz.*, Oct. 24, 1857.

INJURIOUS EFFECTS OF CAUSTICS IN CANCER OF THE TONGUE.—A case of an extremely painful nature, of cancer of the tongue, came under our notice on the 26th of May, at the Cancer Hospital, in a poor woman, aged forty-two years, from Camdentown. It had not

been of long existence, and some short time back the disease was not bigger than the point of her finger, in the form of a tubercle. She was at this time seen by Mr. Lawrence, of St. Bartholomew's, who advised its removal. She, however, would not consent, but became a patient under Dr. Fell's care, and continued under him three months. During this time, he applied caustics to her tongue, generally about nine in the morning, and they were retained on till five in the afternoon, during which time she went without food. She suffered most horrible pain, and, to use the poor woman's own words, "the pain was so intense, that for three hours she could not see." Whilst under this treatment, the cancer increased to six times its former size, and now presents a deeply ulcerated and indurated surface at the right side of the organ, with much swelling and pain. She looks completely worn out from previous suffering. The first thing attended to at the Cancer Hospital in such a case, is to improve the general health by tonics and good diet, and accordingly cinchona and hydrochloric acid were ordered internally, with the use of a lotion of biborate of soda, half an ounce to the pint of water, and the local application of sulphate of copper. Dr. Marsden has found sulphate of copper and borax the only two substances of actual service in cancer of the tongue, and the moment their use is discontinued, the disease progresses.—*Lancet*, June 6, 1857.

INFLUENZA IN ENGLAND.—Influenza in an epidemic form, it is stated (*Med. Times and Gaz.*, Dec. 5, 1857,) is threatening England as it did in 1847. As a precursor of cholera, this disease should be watched with peculiar interest. Diphtheritis is also spreading over the country.

SYDENHAM SOCIETY.—We regret to announce that this Society has been dissolved. Great efforts are, however, being made to reconstruct it. Should these be successful, as we sincerely hope they may, the works which will be issued will be more modern, and of a more practical character than those issued by the old Society.

FACULTY OF MEDICINE AT PARIS.—M. Marc See, as the result of a brilliant *concours* just concluded, has been appointed to the important post of *Prosecutor* in the Paris Faculty.

MEDICAL REFORM.—It would be a happy day for medicine which inaugurated so radical a reform as that all future members of the profession should possess a degree in arts. At present, however, it would be almost Utopian to expect to accomplish an undertaking of so great a magnitude. Permanent and healthy advances are not made *per saltum*, they grow out of the steady pressure of a public opinion, the growth of which is itself slow and gradual. It is not by sudden transition, either in the moral or the physical world, that the highest developments are reached. So we must endeavor to help on the tendency of the times rather than to push forward to an advance for which society is hardly as yet prepared.—*Lancet*, Dec. 12, 1857.

YELLOW FEVER AT LISBON.—Since the 9th of September last, yellow fever has raged in Lisbon, and during one hundred and five days 13,482 cases occurred, with 4,759 deaths. The last cases were reported on the 22d of December, and the plague was apparently stayed by the setting in of cold weather. Twenty years ago, it was generally believed that yellow fever, in its virulent epidemic form, was confined to intertropical regions; but, of late years, it has crept along the coast of America to places where it was formerly altogether unknown, and has now attacked, in a malignant form, a city of Europe, situated in latitude 38 deg., 42 min. The French authorities have therefore taken the alarm, and wisely adopted precautions to avert, if possible, the outbreak of the disease in France. The lazarettoes, which have been long disused, are preparing for the reception of invalids; and Dr. Melier, Inspector-General of the French sanitary services, is making a tour of the ports, and adapting rules in each of them for the due establishment of quarantine. One large transport ship, which arrived from Senegal with 186 invalids on board, has been prevented from landing her passengers at Brest, because she had unfortunately entered the Tagus on her passage, although no yellow fever appeared on board. In such cases, the International Sanitary Convention decrees that ten days must elapse without the occurrence of yellow fever between the touching at an infected port and the removal of quarantine.—*Lancet*, Jan. 9, 1858.

Loss of French Troops in the Crimea.—Dr. SCRIVE, who acted as Physician-General to the French army during the last war with Russia, has just published a book which contains a painful account of the losses and sufferings endured by the French troops landed in the East, but particularly by those engaged in the siege of Sebastopol. Of 309,278 officers and men sent from France during that short war, 200,000 entered the hospitals, and were treated professionally, 50,000 for wounds received in action, and 150,000 for diseases of various kinds contracted during the campaign. The first troops which embarked in France were attacked with cholera, which followed them to Athens, Gallipoli, Varna, and the Dobrudstcha. On their arrival before Sebastopol the cholera again attacked them, and the receptions in the military hospitals during the month of January, 1855, amounted to 9,000. They were chiefly treated for cholera, scurvy, frost-bites, and wounds of every description. Typhus fever shortly after set in. The health of the army was better during the spring of 1855, but the cholera reappeared in July, and placed 4,500 men *hors de combat*. Typhus fever set in again, and added to the mortality. On the 8th of September, Sebastopol was taken by the allied armies, but, nevertheless, between the 1st of September, 1855, and the 1st of April, 1856, of 145,120 French troops under arms in the Crimea, 48,000 entered hospitals. Dr. Scrive says that the scurvy prevailed at this period, the constitution of the men being impaired through fatigue and privations. He further adds, that the most disastrous period of the campaign, in a medical point of view, was during the months of February and March, 1856. A violent typhus, engendered by the infection of the heaps of refuse in the camp, struck down more than 19,000 soldiers at the end of the campaign, notwithstanding the precautions adopted by the medical staff. It is said that the number of sick in hospital, in proportion to the force under arms, was never so great in any former campaign. Of the medical staff, 83 physicians or surgeons fell victims to their devotedness—"an enormous figure," observes the author, "when one reflects on the small number employed."—*Mid. Times and Gaz.*, Nov. 28, 1857.

EXTREME SUFFERING FROM THE APPLICATION OF CAUSTICS.—On the 3d of November, we were present at the Cancer Hospital when a woman presented herself for the first time for advice about a can-

cerous right breast, much enlarged and indurated, with a large excavated ulcer, discharging most offensively; with pain agonizing in the extreme. She looked worn out and exhausted from suffering, her countenance was wan, thin, and pale, and she was suffering from pain in the left as well as the right breast. Her name and address, which she had no objection to make publicly known, is Margaret Smith, residing at 1 James Street, Larkhall Lane, Vauxhall. Her age is forty-seven, and she has had cancer of the breast between eight and nine years. The tale, as related by herself, was to the effect that she had recently been a patient in the Middlesex Hospital, under the care of Dr. Fell, for her diseased breast. Whilst there, a powder was blown into the ulcer, which caused *dreadful pain*, and almost took her senses away. She nearly lost the use, she states, of the entire side from this powder, and it has affected her senses of smell, taste and hearing. The discharge becoming very offensive, a lotion was applied, without either correcting it or removing the pain; and thirdly, an ointment was applied, which she further observed "made her ten times worse." She thinks she was made a great deal worse—much worse than before she went into the hospital. She was in this hospital three months, suffering, as she herself describes, great torture.

This patient, we will observe, is only one example of a number who similarly complain, several of whom have become patients at this hospital, and whose cases we have referred to on two or three previous occasions.

The treatment adopted in such a case as this is of the most strengthening and generous character in regard to diet and regimen, so far as the constitutional powers will admit. Tonic remedies of dilute hydrochloric acid, conjoined with bark, and a little opium (although the latter is seldom used here,) are administered almost as a rule; and lastly, and not the least important, a well-made carrot poultice is applied three times a day.—*Lancet*, Nov. 14, 1857.

LARGE TUMOUR OF THE AXILLA.—A very remarkable example of an axillary tumour was presented to the notice of the pupils at King's College Hospital on November 7th, and which was submitted to an operation for removal by Mr. Fergusson. The patient was an eld-

erly woman, the mother of several children, and at the present moment about six months *enceinte*. She became an inmate of the hospital about a week ago, when, on careful examination and attention to her history, Mr. Fergusson advised the removal of the growth. It appears that she first noticed a nodule near the axilla six years ago, which slowly increased in size till up to six months ago, when its growth became somewhat rapid, so that a tumour the size of a cocoa-nut had now formed, which extended into the axilla, forwards under the great pectoral muscle, and downwards and forwards towards the left breast. This last position gave it the appearance at first as if springing from the mammary gland; but a careful examination showed that it was a distinct mass, although in close proximity to it. Although the patient was in a pregnant condition, it was deemed best to remove it at once from the rapidity of its growth, and accordingly this was accomplished while she was under the influence of chloroform, administered by Dr. Snow. In commencing the operation, a large transverse incision was made over the tumour—the skin covering which was mottled with enlarged veins—cutting through the fibres of the pectoralis major muscle. This, however, was not found sufficient, and the fibres of the lesser pectoral were divided. The greater part of the tumour was detached with the fingers; but a projecting lobe extended upwards under and behind the clavicle, which was removed by the finger. At this point some care was requisite as Mr. Fergusson had immediately in front of his finger the subclavian artery and vein, and some large branches of nerves, and in the short space of four inches the course of the blood-vessels was exposed, the slightest wound of which would have caused some trouble to stop, as well as the risk of air entering the vein in such a situation. An artery was divided at the back part of the tumour, together with a nerve, which was believed to be the subscapular; it was the only vessel that required tying. Although the tumour was soft and friable, every portion of it was removed, and the wound was closed by stitches. In character it seemed to be fibro-plastic in a state of softening, and certainly resembled in many respects, as Mr. Fergusson remarked, tumours in the region of the parotid. Our hope is that it may not be malignant, and cause future trouble. In some parts of it there had evidently been effusions of blood.—*Med. News.*

AMERICAN MEDICAL ASSOCIATION.—The Eleventh Annual Meeting of this Association will be held in the city of Washington on Tuesday, May 4, 1858. The Secretaries of all societies and other bodies entitled to representation in the Association, are requested to forward to the Secretary, *Alexander I. Semmes, Washington*, correct lists of their delegations as soon as they may be appointed; and the Committee of Arrangements earnestly desire that the appointments may be made at as early a period as possible.

MEDICAL STUDENTS IN DUBLIN.—The number of medical students in Dublin who have entered for dissections during the present session is 473; to these may be added about 100 attending on lectures but are not dissecting, and it will show the whole number of medical students to be about 573.

MM. ANDRAL AND BERARD.—M. Andral, Professor of Pathology and General Therapeutics, and M. Bérard, Professor of Physiology to the Faculty of Medicine of Paris, have been authorized, on account of their bad health, to decline lecturing during the first *semestre* of 1857–8. M. Lasèque is to act as M. Andral's substitute, and M. Beclard as M. Bérard's.

MEDICAL STUDENTS IN PARIS.—The number of medical students taking out inscriptions for 1857–8 amounts to 901 for the Doctorate, and 126 for the grade of *Officier de sante*—total, 1027. The number of new inscriptions amounts to 158. Last year the total was 1000, of which 126 were new. The following is a comparison of the last eight years:—

1850		1223	inscriptions	429	new
1851		1300	"	313	"
1852		1437	"	334	"
1853		1055	"	158	"
1854		964	"	151	"
1855		966	"	180	"
1856		1000	"	126	"
1857		1027	"	158	"

TREATMENT OF INTERMITTENT FEVER BY DOUCHES OF COLD WATER.

—M. FLEURY has addressed a note to the French Academy of Sciences announcing that he has treated successfully 114 persons, attacked with intermittent fever, simply by *douches* of cold water. Forty-three of these cases were recent and 71 old, and had resisted other treatment. In all these last cases, there was a swelling of the spleen or the liver, or of both, and a state of anæmia or even of cachexia. In some there was a complication of dysentery, hematuria, scurvy, albuminuria or hallucinations. No other mode of treatment had been employed but cold *douches*, and there has been only one reappearance of the disease. Only one douche has been enough to cure in some cases, never has it been necessary to employ more than five. This influence of the douche exists only when it is applied just before the fever sets in, or immediately after it has begun.—*Med. Times and Gaz.*, Dec. 12.

DRY CUPPING IN TYPHOID FEVER.—Affections of the respiratory organs occurring in the course of typhoid fever constitute a very dangerous complication ; and M. Beecher has treated them of late at the Beaujon with great success by the application of large numbers of dry cupping glasses to the chest, and especially to the lower extremities. The number has varied from twenty to eighty cups, divided into two series, one applied in the morning, the other in the evening. The number in some patients has amounted to five hundred in ten days. Large ecchymoses form on the limbs, but these have never given rise to the least mischief ; while the thoracic symptoms become effectually relieved. M. Beecher declares that since he has followed this plan, the mortality of these fevers with this heretofore dangerous complication has fallen to zero ; and M. Bourdon, of the Lariboisiere, reports as favorably. M. Beecher has not found the same benefit result in the comatose form of typhoid fever.—*Ibid.*, from *Bell do Therap.*, Nov. 15.

COFFEE AND LEMON-JUICE IN AGUE.—M. VON HOLSBECK draws attention to a mode of treatment he has found useful. Infuse an ounce of well-roasted coffee in three ounces of boiling water, and having strained the fluid, acidulate it with lemon-juice. The whole is given at once, five hours before the paroxysm.—*Med. Times and Gaz.* Dec. 27, 1857, from *Presse Belge*, No. 42.

SURGICAL INSTRUMENTS,

BY K. KLOTT.

BETWEEN RICH AND FRIEND STS., WEST SIDE,
COLUMBUS, OHIO.

Mr. KLOTT, who has been for a long time in the employment of Geo. Tieman, of New York, has opened a new establishment for the manufacture and sale of all kinds of Surgical and Dental Instruments of the finest quality, which he proposes to sell on the most reasonable terms.

He keeps constantly on hand a great variety of instruments, which he invites physicians, surgeons and dentists to call and examine before purchasing elsewhere. He hopes, and is determined to furnish the western profession with as good a quality of instruments as can be found in our largest cities.

 Orders from abroad promptly attended to.

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[Jan. 1853.]

THE OHIO
MEDICAL AND SURGICAL JOURNAL.

Vol. 10.

Columbus, May 1, 1858.

No. 5.

PART FIRST.

ORIGINAL COMMUNICATIONS.

Surgical Cases. By the Editor, JOHN DAWSON, M. D.

In the practice of almost every one who does much in his profession, cases are continually occurring which, if reported, would either modify opinions entertained, or perhaps add something to present knowledge. All attach great importance to hospital experience, to the opportunities afforded of studying the nature of diseases, and the efficiency of remedies on an enlarged scale. All this is very proper. But how many appreciate the fact that the private practice of a physician furnishes the same kind of information, although on a less scale, yet in many respects equally valuable? Hospitals are always situated in cities; as a consequence, we not only have, in the maladies which make their appearance in them, an expression of the diseases, and forms of disease most common to dense populations, but we have the staple diseases of the interior, not less than surgical accidents, peculiarly impressed, impressed in such a way often as to modify essentially their character and treatment. In the private practice of a physician, diseases are witnessed in their purity, if such a term be allowable, uncomplicated with the effeminacy or vices of city life. Under such circumstances, their natural history, their habits, can be studied, an opinion can be formed, as to what

constitutes the elements of a particular disease. Take for example, an epidemic of typhoid fever, as it makes its appearance in the population of a rural district. Here we find about the average grade of vascular excitement that obtains, the tendency to eruptions, to hemorrhages, to diarrhoea, to complications of the head, chest, or abdomen. Such information really constitutes the foundation of correct knowledge with reference to the essential nature of the disease, and when tabulated, exceeds in value, to the student of medicine, what is obtained from hospital practice.

Such is the variety of surgical diseases, surgical accidents, etc., that the practitioner has in almost every case to depend on his own resources. Many of the operations he has never witnessed. Indeed, it may be said that there are very few of the accidents he is compelled to manage, or of the operations he is called upon to perform, upon which he has any experience whatever. His own judgment in bringing to his aid resources, and his own knowledge of the structures involved, must be his guide in directing the knife, for the first time, through tissues, an injury of which, might occasion immediate death. Any one can see just here how necessary it is to be acquainted with structure. Indeed there is no department which so often serves the physician or surgeon, as anatomy. Really the surgeon can do nothing without a knowledge of anatomy.

The cases we are about to report, although not like others of the same general character, are by no means unique. It is therefore not on this account that we give them publicity. It is that they may be instrumental in awakening the attention of the reader to what, before a fortnight, may fall into his hands for treatment.

CASE.—*A grain of corn in the trachea—Boy six years of age—Tracheotomy—Recovery.* The patient, a boy six years old, was playing with other children. While in the act of laughing, a handful of corn was thrown into his face, one grain of which passed into the windpipe. When called to see the patient, some twelve hours after the accident, there was but little disturbance of any kind present. Paroxysms,

however, of coughing, and of difficulty of breathing, it was said, came on occasionally, which alarmed the parents. The diagnosis was easy. A foreign body could be distinctly heard playing up and down in the trachea during each respiratory effort. In expiration it seemed to pass upwards, in inspiration downwards. Various expedients for relief were tried such as emetics, placing the patient upon his head, sternutatories, etc. We attempted the introduction, also, of a gum elastic catheter into the larynx, hoping by this means to favor the exit of the substance; no good resulted. An operation was next proposed. The parents, however, objected. They had heard that spontaneous ejection once in a while occurred in such cases, and wished that the operation be deferred as long as possible. Nothing more was done for a period of four days, during which time the paroxysms of coughing and dyspnoea increased so much that the patient seemed to be threatened with suffocation. Besides, there was some evidence of inflammation commencing in the larynx and trachea. All the usual sources of relief being exhausted, the friends became not only willing, but anxious to have the operation performed. The trachea was opened on the fifth day after the accident. On making the incision, much more hemorrhage occurred than might have been expected. The trachea was opened to the extent of one inch or more from the sternum upwards. The foreign substance (a grain of corn) did not immediately escape. A probe was then introduced into the interior of the trachea, which produced sufficient tickling to bring on cough, when the substance was ejected with a force that carried it to the distance of a rod or more. The wound was drawn together and closed by adhesive plaster, and the patient was well at the end of five days.

Remarks.—The above is a kind of case that nearly every physician, at some time or other in his life, is called upon to treat. It is one that does not admit of time to be transferred to the professional surgeon. The physician in attendance must be prepared to give his patient all the benefits that science affords. After using proper expedients without success,

rather than let the patient die, he should, without hesitation, apply the scalpel.

The surgical anatomy of the part of the neck involved in tracheotomy, is somewhat intricate, and from a variety of circumstances the operator may be embarrassed. To a few points we will allude.

The mean diameter of the trachea is from ten to twelve lines in the male, and from eight to ten in the female; in children the diameter is disproportionately smaller—generally not more than four lines. The average length of the cervical portion varies in the adult but little from three inches; in the child it is very short. The *coverings* of the trachea, at the place usually selected for operating, are the skin, beneath this the superficial cervical fascia, then the sterno-hyoid and sterno-thyroid muscles, the former of which come together in their ascent at the medium line; beneath these muscles we have the deep cervical fascia—between this fascia and the trachea is the thyroid plexus of veins. The deep cervical fascia in children often contains more or less adipose matter; traversing this fascia on the front of the windpipe is the middle thyroid artery—the artery of Neubauer.

The isthmus of the thyroid gland extends downwards over the third and fourth rings of the trachea. In tracheotomy this should be avoided. Instances are given, however, where the isthmus has been severed with impunity; still it is right to avoid doing so. The space between the lower border of the isthmus and the sternum is the point properly selected for the operation.

The trachea varies in depth from above downwards. Where it is covered by the isthmus of the thyroid gland it is comparatively shallow, while at the point where it enters the thorax it is, in children that are fat, and in short-necked persons, about one and a half or two inches from the surface. With such facts the operator should make himself familiar.

Laryngotomy is a much more simple and easy operation. The parts divided in this are the skin, the cervical fascia, and the crico-thyroid membrane.

There are a great number of circumstances which may

make the operation of laryngotomy somewhat difficult to perform. Children are apt to cry and struggle, and when fat, the depth of the incisions is much greater than might be imagined. In performing the operation, an incision is made through the integuments, directly along the median line, and extending from the base of the cricoid cartilage to within a quarter of an inch of the top of the sternum. This is about the extent of the cutting that it is necessary or proper to do. The incision through the integument and fascia exposes the sternohyoid muscles; these should be separated from each other where they are in opposition at the median line with the handle and point of the knife rather than with its edge. The blood flows very freely on the least incision; but if the operator uses the handle of his instrument, the thyroid plexus of veins and the numerous small arteries that are in the way, may be carefully drawn to one side, and thus a hemorrhage, that would otherwise protract the operation and endanger the life of the patient, is avoided. Should the middle thyroid artery be cut, it must be at once secured; this contingency, however, does not often happen. The isthmus of the thyroid gland, when it descends lower than usual, should be held out of the way. The operator having found his way to the trachea, and having completely checked up all hemorrhage, next proceeds to open it. In executing this step of the operation, the knife is entered with its back to the sternum, care being taken to cut from below upwards, in order to avoid injuring the great vessels at the root of the neck. In order to afford room for the spontaneous ejection of the foreign body, the incision into the trachea should be from three-fourths to an inch in length.

It does not always happen that as soon as the opening is made in the windpipe the foreign body is at once expelled. Perhaps this is true in most instances where the substance, be it what it may, is found floating up and down the trachea at each act of respiration. Should, however, the intruder have hid itself in the ventricle of Morgagni, or become impacted in the rima of the glottis, or in one of the bronchial tubes, a little manipulation becomes necessary. The patient should at

once be released from the constrained position, and the lips of the wound be held open for a moment. Should the substance still not make its appearance, a probe may be introduced, and the part tickled, so as to bring a cough. The patient, when other expedients fail, should be turned upon his face.

Should it happen that the foreign body is so firmly impacted in the larynx as to render it impossible to remove it by the ordinary methods, the suggestion of Desault, to divide the thyroid cartilage its whole length along the median line, may be adopted. In the transactions of the American Medical Association, a case is given by Prof. Mussey, in which a cockle-bur was so firmly fixed in the ventricle of Morgagni, that the thyroid cartilage had to be divided its whole length. The cricoid cartilage and crico-thyroid membrane had been previously divided, but without success. The bur was half an inch in length.

It is regarded as a very essential matter that the windpipe should not be opened until every vestige of hemorrhage has been arrested, as the smallest quantity of blood entering the artificial opening, might induce spasm or instant suffocation. Should the patient survive the incisions to the trachea, no danger can result from the short delay necessary to the above precaution.

When a foreign body is certainly known to be in the air-passages, how long should the operation be delayed? I answer, no longer than is necessary to get ready for its performance. It is true that the system may relieve itself by spontaneous expulsion. I have no statistics at hand showing the proportion of such cases; but, judging from personal experience, which is limited, it is large. Then, again, in quite a number of cases operated on, the foreign body cannot be found, and the patient, as a consequence, is then necessarily abandoned to the powers of nature, which, even under such circumstances, has in many instances proved equal to the emergency. Notwithstanding all this, it is a pretty plain maxim that the operation should not be delayed. Death may arise at any moment from spasm of the larynx, occasioned by the foreign body striking against it in the act of respiration,

or from violent coughing. If retained for any length of time, the substance may, besides, give rise to a great variety of lesions, that sooner or later terminate fatally. Among these Prof. Gross enumerates inflammation, abscess, and tubercle of the lungs, inflammation of the mucous membrane of the wind-pipe, and inflammation of the pleura, with effusion of serum and lymph, or sero-purulent matter.

Prognosis.—I know of no data going to show the average success of the operation under consideration. The cases that have been tabulated relate mostly to laryngotomy for *croup*. At the *Hospital des Enfants Malades*, within the last five years, the operation has been performed 215 times. Results:—168 deaths, 47 recoveries; or about one recovery to four operations. This may approximate, to some extent, what we have as the result of operations for foreign bodies; still it is not reliable. No case of *croup* can be said to resemble, in scarcely any respect, the state of things pathological, that obtains when foreign bodies are present. Membranous *croup* is preceded by constitutional disturbances and local inflammation, which affect the question of prognosis very differently from what it is in cases where some substance has accidentally found its way to the interior of a tube not previously diseased. I believe, therefore, that instead of there being but one in four recoveries, as is the case in the operations for *croup*, we may have in the operation under consideration a much higher success. It is true that often where the operation for foreign bodies is delayed, inflammation of the mucous membrane makes its appearance; also fever, and irritability of the general system. Sometimes, again, from the embarrassed condition of the function of respiration, the blood ceases to be sufficiently aerated, and as a consequence the system of the patient becomes very much enfeebled, unable really to stand a shock. In cases of this character the mortality of the operation must necessarily be high. Where, however, the general system has not sympathized, the “*operation mortality*” is all that has to go into the account of results.

Case of Femoral Hernia, occasioned by an injury; no peritoneal sac.

Mrs. F., act. 60, of good constitution, after jumping over a fence, felt some uneasiness in the right groin. She immediately took her bed, but was not conscious that anything serious had occurred. On the second day after the accident I was sent for. She then complained of abdominal pain, but without locating it at any particular point; had also some thirst, and a slight fever. I proposed making an examination, but she, having rather an over-stock of false modesty, objected. A dose of jalap and cream of tartar was then prescribed, to be followed by a dovers powder. On the third day I found that the cathartic had not operated; that there was vomiting and an increase in the pain, and some febrile excitement. Now insisted on an examination of the groin, and found a tumor of nearly the size of a hen's egg in the region where femoral hernia usually takes place. The character of the case was now evident to my mind, and I fully explained it to the patient.

The tumor not being irritable or very painful, taxis was well applied for several hours. Nothing at first being accomplished by this method, neauseants were administered; the patient was bled and put in a warm bath. The long elastic rectum-tube was also used. So complete, however, was the impaction of the structures that nothing gave the least evidence of producing liberation. An operation was now proposed. This the patient objected to, saying she would rather die than to submit to it.

On the morning of the fourth day, when I visited her, I found an addition to the troubles. The previous night she had been taken with stercoraceous vomitings. A chamber full of the most offensive fecal matter, from the inverted movements of the bowels, had been ejected. This the patient described as being the most disagreeable circumstance of her affliction. She was therefore in a mood to accede cheerfully to what was thought most advisable to do.

I immediately arranged for the operation, sending a distance of six miles for an assistant—Dr. W. W. Dawson.

The incisions were made in the usual way. On approaching the tumor, it was found to be an entero-epiplocele, without any sac from the peritoneum. The length of time it had been strangulated, and its grayish black appearance, inspired but little hope that the vitality in it was sufficient for reaction. The stricture was found to be mostly formed by the inner and anterior part of the crescentic portion of the crural arch. After this was cut, the parts were returned without trouble. On the fifth day—the day after the operation—glysters were used until the bowels were evacuated. Convalescence after this was rapid.

Remarks.—Hernia, like foreign bodies in the windpipe, is one of the troubles for which every practicing physician should feel himself prepared. There is reason to believe that a goodly number of these cases go to a fatal issue, either from not being recognised, or from a want of confidence to operate.

As the time usually occupied in elaborating the structures concerned in hernia is necessarily very limited, it is impossible that any thing like an accurate or comprehensive knowledge can be obtained. To be understood thoroughly, repeated dissections must be made.

Then again, the coverings in hernia are by no means uniform in the same kinds of the complaint. The density, thickness, and even numbers of the investing layers, depend very much on accidental circumstances. Some of the usual layers may be entirely absent; others connected together so firmly by adventitious matter, that they cannot be separately recognised.

The following are the usual coverings in Femoral Hernia: The integument; superficial fascia of the thigh; fascia propria, continuous with the fascia transversalis; a covering from the textures which occupied the crural ring; lastly, the peritoneal sac. Not uncommonly it happens that the deeper layers split at the lower part, and the fundus of the tumor emerging through the aperture, may be covered only by the superficial fascia and integument.

Seat of Stricture.—The canal through which femoral hernia occurs, is about an inch in length. It extends from the crural arch, Poupart's ligament, to the opening in the femoral

aponeurosis through which the saphenous vein communicates with the femoral vein. The canal is funnel-shaped, and is nothing more than the unoccupied portion of the sheath of the femoral vessels lying internally to the femoral vein. The following are the boundaries of the canal: The crural arch or Poupart's ligament *above*; the body of the pubis *below*; the femoral vein *externally*, and the crescentic margin of Gimbernat's ligament *internally*. Much stress, by different writers, has been laid upon the influence of particular portions of the boundary as the *seat* of the stricture, as the point mostly concerned in strangulating the protruded viscus. Gimbernat, a very accomplished surgeon, called attention to the crescentic margin of the expanded portion of Poupart's ligament, as being the principal seat of stricture, and on this account his name has been attached to the structure. Hey called attention to a ligament that he denominated the *femoral*, and supposed this to be the seat of stricture. This is nothing more than that part of Poupart's ligament which is extended downwards and backwards; it is directly above, or in front of the crural ring. The truth is, the protruding viscus seems to be, according to what observations I have been enabled to make, pretty much equally compressed on all sides. Below the pubic bone, of course, is unyielding, and externally there is the femoral vein. We have, therefore, from necessity, to apply the knife to Hey's ligament, or to that of Gimbernat. Adopting the hypothesis—for, after all, as before intimated, it is nothing more than an hypothesis—that Hey's ligament is the seat of stricture, the incarcerated viscus must be liberated by introducing the knife so as to cut directly *upwards*. There is some danger in thus operating. Poupart's ligament might be divided—an unnecessary act, moreover, and what is more to be feared, the round ligament in the female, and the spermatic cord in the male, would be likely to be injured. Should the arteries, the epigastric, or obturator, be erratic in origin, cutting *directly upwards* would also endanger them. Such considerations make Gimbernat's method the proper one of dividing the ligament, which bears his name, obliquely *inwards* and *upwards*.

Diagnosis.—Femoral hernia is not always easily appreciated by the most skillful in diagnosis. Hernia is sometimes defined to be “a soft tumor at the site of an abdominal aperture, receiving an impulse on coughing, and tending to enlargement under exertion of the abdominal muscles in any way, gurgling under pressure if containing bowel, and capable of being replaced by pressure within the abdominal cavity.” The form of hernia under consideration, is not always characterized by the presence of a tumor that can be recognized. The portion of bowel incarcerated is often so small, and so much out of the way, that the nature of the case has to be made out by other symptoms. Among the diseases with which femoral hernia may be confounded, are enlarged inguinal glands, psoas abscess, varix of femoral vein, and inguinal hernia. From enlarged inguinal glands, it may be distinguished by the circumstance that enlargements of these glands take place slowly, and are accompanied by the usual symptoms of inflammation. From psoas abscess, it may be distinguished by the evidences of spinal disease, by the history of the case, by distinct fluctuation in the swelling, by the “pointing” of the abscess, and by the fact that the site of the abscess is a little exterior to that of a hernial protrusion. Varix of the femoral vein may be distinguished by reducing the swelling, by pressure in the recumbent posture, and then pressing firmly on the abdominal outlet; if the case be one of hernia, there is no reproduction of the tumor; if it be varix, the swelling quickly reappears. From inguinal hernia, femoral may be distinguished by the circumstance that the tumor of the former is situated over the spine of the pubis, with the spermatic cord behind it; in the latter, the tumor is deep, and situated in the outer bend of the thigh. In inguinal hernia, Poupert’s ligament is *below* the tumor; in femoral, it is situated *above* the tumor. In inguinal hernia, the direction of the tumor is downwards and inwards; in femoral, it is almost perpendicular. In inguinal hernia, the form of the tumor is pyramidal; in femoral, the tumor is oval, with its greatest diameter transversely in the bend of the thigh.

Prognosis.—But little was formerly known of the mortal-

ity connected with the operation for strangulated hernia. Pott, for example, taught the doctrine that in cases operated on sufficiently early, and with a due amount of care, there is scarcely any danger at all—not more than one in fifty cases die. From an extensive collection of cases, however, it appears that one in every two, or two and a half, die. Of 77 cases recorded by Sir A. Cooper, 37 died; and of 183 collected by Malgaigne, 114 died.

[Foreign Correspondence]

*At Sea, South Atlantic, 55 deg. S., Lon. 64, W.—Gulf Stream—
Horse Latitudes.*

DEAR SIR: We had fair winds and good weather until we got into the "Gulf Stream," which has figured so conspicuously of late years in nautical science, and which promises so much for its future advancement.

To Lieutenant Maury, U. S. Navy, now at the National Observatory, and his co-laborers, is the world greatly indebted for the light they have reflected on the course of the winds and the currents of the sea; and it requires no great stretch of imagination to conceive of happy results that may flow to our own noble profession, whereby the world may be enriched by farther inquiries in this direction,—possibly the hitherto occult paths of Epidemus may be found out by these investigations, and the means pointed out to stay them in their deadly course.

Here we encountered some rough weather, which is usual in this so called "Storm King" of the Atlantic, but as the wind was fair, we made good headway.

"CALMS OF CANCER."—Ten days out, Lat. 31 deg. N., Lon. 51 deg. We are now in the "Calms of Cancer," which extend over a breadth of three or four degrees of latitude from the 30th parallel north, vibrating north and south with the zones of the trade-winds, and following the declination of the sun, called by mariners "Horse Latitudes," from the circumstance that ships freighted with horses, many of which were

formerly shipped from New England to the West Indies, were so long delayed in this "belt of calms" and light air, that for the want of water they were compelled to throw their animals overboard, and thus frequently lose their whole cargo.

22d day out.—We have been some twelve days in making five degrees of latitude and ten of longitude. We have encountered calms, squalls, and baffling winds, by night and day, throughout this region.

25th day out.—Lat. 26 deg. 4 min., Lon. 38 deg. We had a fine view of a "*water-spout*" this morning. It was a magnificent column of water raised vertically from the surface of the Ocean, and driven furiously by the wind. It passed to the starboard of our course, keeping at a distance sufficiently respectful to be out of our path.

26th day.—We have at length passed the "Horse Latitudes," and are fairly out of the "Sargasse Sea," and in what is usually regarded as the "N. E. trade-wind region;" there are none of these winds for us, but we are getting along pretty well without them.

30th day.—Lat. 10 deg. N., Lon. 30 deg. The weather is pleasant, the evenings delightful. In our cabin, which has been open to the wind on all sides, the mercury has ranged at from 75 deg. to 80 deg., since we left the "Gulf Stream." We are now thirty-one hundred miles from New York.

Flying Fish (Dactylopteros).—We frequently find several of these interesting fish upon the deck in the morning, whither they have been attracted by the light, as the porpoise and dolphin pursued them. They have a kind of a supplemental pectoral fin on either side of a membraneous structure; by the force communicated by these, upon the surface of the water, they can raise themselves several feet above it; they cannot fly, however, only *suspend* themselves for a few seconds; but they are often seen skimming over the surface of the water for some distance, when chased by their enemies.

34th day.—Lat. 6 deg. N., Lon. 29 deg. We encountered a violent gale last night, which broke our main-top-sail yard. "DOLDRUMS." We are now in the great "Equatorial Cloud Rings," or "Doldrums," or "region of perpetual rain."

The late Commodore Sinclair thus graphically describes it as "One of the most unpleasant regions in our globe. A dense, close atmosphere, except for a few hours after a thunder storm, during which time torrents of rain fall, when the air becomes a little refreshed; but a hot glowing sun soon heats it again, and but for your awnings and the little air put in circulation by the continual flapping of the ship's sails, it would be almost insufferable. No person who has not crossed this region can form an adequate idea of its unpleasant effects. You feel a degree of lassitude unconquerable, which not even the sea-bathing, which every where else proves so salutary and renovating, can dispel. Except when in actual danger of shipwreck, I never spent twelve more disagreeable days in the professional part of my life than in these calm latitudes."

38th day.—Latitude 4 deg. N., Lon. 28 deg. We think ourselves fairly out of the Doldrums, as we have been running under a S. E. wind for the last twenty-four hours.

Our little son B——, five years old, has been laboring under a violent fever for the last ten days, which the "Cloud Ring" contributed in no small degree to aggravate, but is now better. His fever left him last night.

40th day.—AT THE EQUATOR.—We passed the equator at 12 o'clock, M. The weather is delightful; a fine S. E. breeze wafts us gallantly on our course. Thermometer 80 deg. in the shade. Distance from New York, 4,223 miles.

So without sleeping, and in broad daylight, we have passed from a northern autumn to the last day but five of a southern spring.

42d day.—Lat. 4 deg. S., Lon. 33. Passed within 7 or 8 miles to their east, and in full view of the *Fernando Noronha* Brazilian convict Islands; the first land we have seen for forty days.

None but the experienced can appreciate the feelings of a first view of land after the tedium of a long voyage. The most desolate rocks and lonely caves are pictured upon the imagination as flower gardens and magic castles.

46th day, December 1st.—Lat. 14 deg. S., Lon. 34 deg. We have stepped from late autumn, upon the heels of spring, to

a southern summer—free from the storms of a hoary winter; our heads will be whitened with the frosts of one less winter than the friends we have left behind.

*South of the Sun, 50th day, (Dec. 5).—*Lat. 23 deg. 36 min. S., Lon. 36 deg. 15 min.; Sun's altitude, 22 deg. 25 min. So we are just under the sun, or about one degree south of it. The weather, since we passed the equator, has been delightful; thermometer ranging rarely higher than 80 deg., with a fine wind all the time.

*51st day.—*Lat. 25 deg. S., Lon. 37 1-2 deg. Thunder storm. Rained copiously all last night. The storm was sublime beyond description. The forked lightning speaking through its ethereal trump to the tempest-spirit as it danced upon the mighty deep, to the music of the terrific Storm King, gave to our noble little bark the insignificant appearance of an infant's toy.

*52d day.—*Lat. 25 deg. S., Lon. 34 deg. Cooler than heretofore. Thermometer 68 deg. Water is still colder. I have worn a coat and gloves on deck by day, and slept under a comfort by night to keep me warm. That the summers of the southern hemisphere are cooler than the northern, I have no doubt, and it is said that their winters are proportionately warmer.

Lt. Maury says that "Summer in the northern hemisphere is hotter than summer in the southern, for the rays of the sun raise on this side of the equator double the quantity of sea surface to a given temperature that they do on the other side."

"In southern latitudes there seems to be no extremes of heat and cold, as at the north." In illustration of this truth, in Columbus, Ohio, in lat. 40 deg. north, cattle require to be fed and housed, while at "Rio Negro," lat. 41 south, they live and thrive well all winter in the fields without feed or any attention whatever.

*56th day.—*Lat. 33 1-2 deg., Lon. 47 1-2 deg. Visited by a thunder storm and a typhoon, or furious gale of wind, which made us take in all sail. We are now just off the mouth of "Rio de la Plata." Thermometer 64 deg.

*58th day.—*Lat. 36 deg., Lon. 49 1-2 deg. 300 miles

from the coast, but the water of "Rio de la Plata" is clearly marked by its color, and it warms the water of the Ocean fully two degrees.

So cold that we have a fire in the cabin. Thermometer 65 deg. Since south of the sun, there has been no day but I required a coat, vest and gloves sitting on the deck in the sun, and I have put on my flannel. Saw an Albatross. Plenty of whales and porpoises.

61st day.—Lat. 42 deg. S., Lon. 53 deg. We are now off that "terra incognita," Patagonia, and although in the midst of summer, it is cold enough, sitting on deck, to wear an overcoat.

We see an abundance of whales, porpoises, albatrosses, and some varieties of birds which we have not heretofore seen.

65th day.—Lat. 50 deg. S., Lon. 61 deg. Yesterday Willie caught a Cape Pigeon, with a hook and line. Stormy weather; squalls of rain and hail. Passed a large shoal of sperm whales.

67th day.—Lat. 50 deg. 47 min., Lon. 62 deg. 23 min. Violent squall without rain last night. Took in all sail, or masts and spars would have been carried away. Wind ahead so as to retard us in our passage to the westward of the Falkland Islands.

70th day.—S. Lat. 54 deg., Lon. 64 deg. We were detained a day or two to the north of the Falkland Islands by adverse winds and much rough weather, but succeeded at last in passing inside—did not see them. Our infant has been quite sick (Scarlet Rash) for a week, but is now better.

Saw several whales; a large variety of birds are abundant, now that we approach the vicinity of the Islands.

71st day.—Lat. 54 1-2 deg. S., Lon. 63 deg. 40 min. We were unable to pass through the straits of "La Maire" from adverse winds; have been in full view and within five or six miles of the two "New Year's Islands," and "Staten Island;" they present a barren and desolate appearance; the latter is some 600 feet high, and its summit is covered with snow. Staten Island is more than a degree east and west. It contains some good harbors, but is uninhabited.

Were boarded by the first officer of the whale ship "La

Grange," Capt. Golden, New Bedford. They are now on a forty-two months' cruise.

He is a very intelligent fellow; has been a "whaleman" a large part of his life, and as we were becalmed, had a long talk with him, and obtained much valuable information about whales and whaling, which to me was interesting. I will arrange a chapter, and give the substance to you as I got it; premising, however, that if you don't like whale, you can reject it, as this animal once did one of our species.

THE WHALE.—"Class, mamalia; order, cetacea; family, Balænaida. Warm-blooded; bringing forth its young alive, generally one at a time, giving them suck." It is not, therefore, a fish; is without scales, breathes the air through enormous lungs, not gills, and respire through its spout or blow-holes—a kind of nostril—or (in the Balæna, or right whale), two apertures, situated on the after part of his head and neck, through which is forcibly expelled the water taken into the mouth in the act of feeding and breathing, and all the warm air and vapor of the lungs. The *sperm whale* has but one blow-hole. This (the Balæna, or right whale), has no teeth; "its mouth is provided with a large number of vertical plates, terminating in fringes, which are composed of a sort of fibrous horn, and may be regarded as a kind of prolongation of the gum. These fringed plates, known as whalebone, serve to retain, by straining from the water, the minute animals on which these enormous beings subsist." Of this material (whalebone) a thousand pounds is sometimes obtained from a single head.

This (right whale) feeds upon what is called *medusa*. It is a little red shrimp, so small, that they have the appearance of not being larger than a mustard seed, and, where abundant, give the surface of the ocean an olive-green, and sometimes a blood-red appearance, for a large distance around. The colodon, or sperm whale is found in every sea and every clime; but its present great field is the Pacific. Their vision is limited, but their hearing is very acute.

This whale is distinguished from the right whale by its possessing teeth in the lower jaw only, instead of the fringe and

whalebone arrangement of the latter, which has *two* large orifices on the back part of the head, from which it spouts up water and vapor to a considerable height, while *this* (the sperm whale) has but *one* blow-hole, communicating only with the lungs, which makes its exit on one side of the head, from which ejects its stream of breath obliquely.

The cow whales go in herds of twenty-five to one hundred, usually accompanied by a bull whale, who acts as leader and champion for all; his head is frequently found covered with scars, supposed to be the effect of battles fought with the champions of other herds, and in defence of his own.

Sperm Whale Food.—Whalemen generally agree that this variety feeds almost exclusively upon the squid or cuttle-fish (Loligo, sub-kingdom *Mollusca*; class, Cephalopoda; order, *Debranchiata*; genus, Decopoda), whose flesh is soft and gelatinous, and is said to be very large; and some whalemen say, such as are eaten by this animal, grow upon, and remain at the bottom of the sea, where, when in want of food, the sperm whale goes. But Capt. Rose says he has seen the squid, alive and kicking, on the surface of the water, and that the whale does not always go to a great depth for its food.

It is many years before the sperm whale arrives at maturity, and it attains to an age of from forty to one hundred years; while the right whale attains its full growth in two or three years at most, and their longevity is not more than half that of the sperm.

Lieut. *Maurv* has ingeniously drawn upon these animals to assist in his laborious scientific investigations.

The favorite haunts of the sperm whale are about the equatorial, while those of the right are about the polar regions; the latter CANNOT cross the equator; one struck on the east side of the continent has been taken on the west.

The right whale of the *northern* hemisphere is a different animal from that of the *southern*.

“Near the tropics is a sort of debatable ground, where the pasturage of one overlaps that of the other, though a straggler from the one herd is occasionally found far over within the borders of the other.”

Capt. McKenzie says, that in their several stages of growth, the males will be found in shoals, all very nearly of a size. Some shoals will yield twenty, some forty, and sometimes fifty barrels each of oil; but when arrived at mature age the males are not found in herds.

Capt. Francis Post, in an interesting letter to Lieut. Maury, says of the sperm whale: "He never spouts water; his spouts, which are simply dense respiration, emitted with some force from his large nostrils, never ascends above twelve feet high, and when unmolested, to half that height. He has but one spiracle through which he respire; this is on the left side of the upper part of the head, and within a few inches of its end; it is about fifteen inches long when closed; and when extended, from five to six wide. The spout shoots obliquely, forward and upward, expanding when it rises, like a whiff of tobacco smoke, which it resembles in form, is visible but for a moment, and is of the same density of fog.

"The males of this species are out of all proportion, the largest, and generally found alone. The female is not more than one-fourth the size of the male; seldom making more than twenty barrels of oil—often much less; while the full-grown male produces from sixty to one hundred; and some have even exceeded a hundred and twenty barrels of oil. He spends from one-fourth to one-fifth of his time on the surface, in sustaining life by breathing atmospheric air. Large whales spout fifty or sixty times when they come to the surface, and the spouts appear at intervals of about fifteen seconds; they then go down, and spend from an hour to an hour and a half beneath the surface of the sea. They are rarely, if ever, seen on soundings."

Unmolested, the velocity of the whale is not more than three miles an hour; but when pursued, as much as ten miles. Sometimes when one of these animals is struck, the whole shoal rush to his succour, and eight or ten are taken from the same herd. "The whaling interest of the United States has become so immense, that the ships in this branch have become so numerous as to form a large and important portion of our navigation. There are said to be from six to eight thou-

sand ships engaged in the fisheries, of which at least one-half are American. Of all the industrial pursuits of the sea, the whale fishery is the most valuable."

"A computation, roughly made, shows that we have now whale ships enough, if placed in a direct line, equi-distant, and just in sight of each other, to form a continued fleet that might reach more than half way round the globe!"

The wealth drawn out of the deep and conveyed by them annually to the shores of America, is immense; no nation can rival us in this perilous branch of industry. Its products constitute a large item, usually set down as a part of our imports, but they should be regarded as the products of the labor of our countrymen, the same as any product of the soil; they are an additional element of wealth, and should be passed from the debit to the credit side of the account of our country, in all calculations designed to show the balance of trade.

In conclusion, while it may in truth be said that "the whale is not much of a fish after all," it is conceded by the very highest authority that it is the largest animal that ever did exist.

Sea-Sickness.

On my wife's account, whose health was now feeble, I dreaded sea-sickness. She had often been on short voyages of pleasure, and even comfort, of a sea voyage; and with me the adoption of this plan has been eminently satisfactory. 1st. *Anticipate* the constipated condition of the bowels by administering, in *advance* of going on board, if practicable, some mild resinous purgative, to act chiefly on the lower intestines; for this purpose, I have found from two to five pills of *rheubarb*, *aloes*, *colocynth* and *soap*, one grain each, to be repeated as often as necessary, to answer every purpose.

The bowels being free on going aboard, the brain will not be so readily oppressed, and the stomach will remain longer

in a quiet and settled condition, and the better bear a repetition of the aperient, which should be continued from day to day, and in sufficient quantities to keep up a pretty free action as long as there is any tendency to any of the symptoms above enumerated.

The stomach is now in a good condition for the administration of some of the mild diffusible stimulents, chloroform, brandy, creosote, &c.

During the Mexican war, I never knew a returned soldier, laboring under chronic diarrhoea, to be affected with sea-sickness; but, on the contrary, the ship's motion usually relieved, and sometimes cured the diarrhoea.

DIET.—The constipation once removed, if a proper diet can be had, there may be no further necessity for aperient remedies; molasses used freely on rice, bread, &c., stewed apples, preserves, jellies, &c., and the avoidance of cheese, and all articles of a constipating tendency, will contribute largely to prevent a recurrence of the symptoms.

With some persons, strongly predisposed to this affection, there will be a return of headache and vertigo, and sometimes nausea, with every recurrence of rough weather; this will be of much less severity, and of shorter duration, if the bowels have been kept free.

The above precautionary measures having been neglected, it may become necessary to administer purgative enemata to allay the irritable condition of the stomach by some diffusible stimulant, and at the same time give pretty freely, but in small quantities, the citrate of magnesia in the state of effervescence, or the common saline effervescing mixture.

The well known high reputation of creosote for allaying gastric irritation, suggested its use in this affection, and it is found to be a valuable remedy in a dose of one drop, rubbed up with gum accaia and sugar, in a table-spoonfull of water, to be repeated occasionally, as the symptoms may require. In the case of pain and spasm of the stomach, opium sometimes becomes necessary, but is objectionable on account of its constipating tendency.

CHLOROFORM.—I have been not a little surprised of late, to

see this article recommended by some journals of high standing in the profession, as a *specific* for sea-sickness, regardless of condition, stage, or circumstance.

That it is the most valuable of all the diffusable stimulants, I believe; but it should be remembered that it is only to allay a few of the *symptoms*—those perhaps the most distressing—nausea, vomiting, and spasms of the stomach—but not to the neglect of the lower bowels—in doses of from four to eight or ten drops, in from half to an ounce of cold water, to be repeated every two or three hours, as the symptoms may require, and until the vomiting, sickness, &c., have subsided, I have found to act like a charm, arresting the nausea and other distressing symptoms in a short time, and where the bowels had been kept free, the patient was soon in a condition to take small quantities of brandy and water, or London porter, and moderate qualities of mild animal broth, and subsequently a return to the usual diet. In administering the chloroform, I would prefer to wait till the stomach has been freely evacuated by emesis.

But in spite of all our remedies, some patients will be subject to a return of more or less of the symptoms of sea-sickness, in rough weather, during the longest voyage, unless they keep on deck a large proportion of the time, breathing the free air. They should walk about, devote themselves to some active and, if possible, useful employment; the mind, as well as the body, should be employed in such a way as will best divert it from the train of thought incident to sea-sickness. By this treatment, and an observance of the above plan, my family passed the ordeal of sea-sickness far better than we had expected.

Hasta luego,

W. T.

Remarkable Recovery from Poisoning by Opium. By W. L. McMILLEN, M. D., Columbus, O.

An infant child of Mr. G. O'H., aet. two weeks, had administered to it by its mother, under a mistaken notion as to how

much constituted a dose, 5 drops of paregoric, and 2 drops from the dregs of a phial of laudanum. This occurred on the 8th September, about 1 o'clock, P. M. Estimating the paregoric and laudanum as being of officinal strength, the amount taken would be equivalent to about one-half of a grain of opium. This in itself would have been a full dose for a child a year or two old; but we all know that "laudanum, when long kept, in consequence of the evaporation of a portion of the alcohol, becomes thick, and if given in this state often acts with unexpected energy," producing death, when, if the mixture had been of its ordinary strength, the dose would have been harmless.

Soon after giving the dose, (within the first hour) the mother became alarmed in consequence of the appearance of the ordinary signs of narcotism, stupor, difficult respiration, &c. Instead of at once calling in professional assistance, a consultation of neighborhood mothers was held, and the time until 6 P. M., consumed in the use of domestic remedies, such as draughts of mustard water, external stimulation, &c. Failing to afford the child any relief, we were then sent for, but not being, just at that time, at home, our friend, Prof. Carter, saw the patient first. Arriving soon after him, however, we found the child in the following condition: the pupils contracted to the size of a pin hole; pulseless; irregular and labored action of the heart; respirations spasmodic, and performed at long intervals; the face and lips livid; the extremities purplish, and the whole surface cold, together with a total loss of the power of deglutition. As the only means of maintaining what little vitality remained, I at once commenced using artificial respiration, and dispatched a messenger after Prof. T. G. Wormley, who I knew a few days before had received a very fine electro-magnetic machine from Germany. Arriving promptly, we at once applied it in full force, placing the negative pole at the back of the neck, and the positive over the thoracic and abdominal muscles. This, for nearly an hour, constantly applied, produced no perceptible effect, not even muscular contraction, and the preservation of life at this crisis

was due entirely to the artificial respiration which had been unintermittingly maintained.

At the end of about this time, however, the patient began to show signs of sensation, and the application of the electricity would produce contractions of the muscles of the extremities, and convulsive respirations. Its application was continued, with but little intermission, until five o'clock the next morning, a period of ten hours, before the organs were sufficiently restored to perform their functions unaided. From this time on, recovery was rapid, and in twenty-four hours from the time I first saw the patient, it was out of all danger. During the night, and also the next morning, frequent and long-continued convulsions were present.

This case is chiefly valuable in showing the importance of perseverance in the use of two of the most efficient means we possess in treating cases of poisoning by opium, viz: artificial respiration, and electricity. Beyond doubt they were here the means of restoring a child, which at one time, and for some seconds, was entirely lifeless.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

Extracts from the Records of the Boston Society for Medical Improvement. By F. E. OLIVER, M. D., Secretary.

FEB. 22d.—*Leucocythæmia*. Dr. C. E. Ware reported a case of leucocythæmia, with enlarged spleen and liver.

The patient was a woman 39 years of age, whose health had never been good since her first confinement, fifteen years previous. Her complexion always wanting in color. Five years since, she first noticed some fulness in the left side of the abdomen. For three years a tumor had been obvious; and for the last two years her health had been constantly failing. There was at times urgent cough, and once or twice slight hæmoptysis. She had also dyspepsia, all her food disagreeing

with her. The catamenia was regular until the last three months: since then absent. She had never had jaundice.

Dr. Ware saw her first, three days before her death. She was then extremely emaciated, but up and dressed. Her complexion was perfectly blanched; pulse 130, very feeble; tongue thinly furred, smooth and pale; skin dry; no night sweats; bowels regular; dejections normal in color and character; urine normal in quantity, rather high colored, but not tinged with bile. There was slight œdema of feet, but no other signs of dropsy existed.

The chest presented no marked physical signs of disease. There was not, nor had there been, any enlargement of the lymphatic glands. The abdomen was moderately full, but not tense nor tender. The liver could be made out by touch and percussion, extending about an inch and a half below the ribs, across the epigastrium, and down the left hypochondrium as far as the crest of the ilium; the edge of the tumor, and the fissure between the right and the left lobe, being apparently perfectly well made out. A drop of blood from the arm presented a very great preponderance of white corpuscles.

The patient continued to sink, and died two days afterward, her mind being perfectly clear to the last.

At the autopsy, there were found firm adhesions of both lungs, with cicatrizations, cretaceous matter, and all the appearances of old tubercular disease about the apices of both lungs. Both lungs were quite œdematous.

Into the pericardium there was moderate effusion. The heart was normal; containing a large amount of soft clots and liquid blood. On opening the abdomen, the tumor was found to be composed of the liver and spleen, both enormously enlarged, the spleen weighing 3 1-2 pounds. The liver extended far over to the left side, overlying with its left lobe a considerable portion of the spleen, so as to give to the touch a perfectly uniform surface quite down into the iliac region. It was apparently not altered at all in its texture, being merely hypertrophied—not fatty. The spleen was natural in color, and firm in texture.

Dr. Ware also alluded to another case of leucocythæmia, not apparently splenic, which he reported to the Society at the meeting previous. This occurred in a girl 16 years of age, who had always been in feeble health, and in whom the catamenia had never appeared. When seen, a few weeks before her death, she was perfectly anæmic. She had been failing in health for more than a year, without other evidences of organic disease. The lymphatic glands of the neck were considerably enlarged, but there was no sign of tumor, or of enlargement of any of the organs of the abdomen. There

were no signs of thoracic disease. There was moderate œdema of the feet, and a few purple blotches upon the legs. There were no indications of renal disease. About a fortnight before her death she was attacked by diarrhœa, in the course of which there was quite a copious hæmorrhage from the bowels. She died, very suddenly, of hæmorrhage from the stomach, having been much excited and fatigued by moving from one house to another. No autopsy was allowed. But in her case, before her death, the same disproportion was found between the white and red globules, in blood taken from her arm, as in the first case.

FEB. 22d.—*Primary Cancer of the Bladder.* Dr. Hodges showed the specimen and reported the case.

W. S., 49 years old, had had pain in his loins and painful and difficult micturition for about four years. At times his urine has been tinged with blood. Gave up work ten months before his death, though for some time previous he had been unfit for it. At this time he complained of intense pain in his fundament and in the end of his penis; the corpora cavernosa were indurated. His urine was passed, with much scalding, every half hour. The stream was occasionally interrupted, was always bloody, and deposited much mucous and glairy matter. Dr. H. sounded him, but found no stone or evidence of fungus. The bladder held about an ounce of water. His condition remained about the same during the succeeding months. His appetite continued, and he rode out within a fortnight of his death. During the last fortnight, however, his urine gradually assumed a chocolate color, became very offensive, and had a grayish purulent deposit mixed with clots of blood. It occasionally passed involuntarily. He had a tender globular tumor in the left hypogastrium; also a tumor bulging into the rectum, almost precluding examination or the introduction of suppositories of morphia, which were his chief source of relief. He began to vomit and hiccough about a week before he died, and nothing had any alleviating effect. For the last four or five days he had a diarrhœa, the passages being involuntary, and occurring whenever he passed his water. An instrument always entered his bladder without encountering any obstacle.

At the autopsy, the bladder was found filled with a soft encephaloid mass, which was broken down during removal. The mucous membrane of the bladder was destroyed, except at one point where a surface as large as a silver dollar remained intact. It also existed in its natural state for a distance of three or four lines around the orifice of the urethra. The ureters were dilated, and the fundus of the bladder had formed an adhesion with the rectum that would soon have led to a

perforation. The pelves of the kidneys were dilated, and the substance of these viscera was in a state of inflammation. The lumbar glands were enlarged. The other viscera were not remarkable.

MARCH 8th.—*Fragment of Bone in the Urethra. Vesical Calculus.* Dr. J. Mason Warren reported the case.

Dr. W. said that a few weeks since, a young man, 28 years of age, applied to him with an obstruction in the urethra, and a pain at the end of the penis. He had suffered more or less with urinary troubles for some years, but had not been obliged to give much attention to them until within the last two weeks. Some difficulty was encountered in passing a catheter, from a twist in the urethra, caused by the position of the pelvis—the patient having, in childhood, suffered from a severe hip disease, in the course of which the right femur had become ankylosed with the acetabulum, and now lay diagonally across the perinæum, so as to interfere much with the manipulations of the instrument. Near the neck of the bladder a foreign substance was detected, which appeared to be a bit of bone; and on the patient being interrogated, he said that three years since he had consulted Dr. W. for a fistula in the perinæum, caused, apparently, by the escape of a bit of osseous matter at that point. On inspection, the hip and thigh were studded in every direction with cicatrices, made by the openings for the escape of bone.

After two or three days' treatment, the obstruction in the urethra was removed, and the patient relieved. Before returning home, Dr. W. thought it best to explore the bladder with a sound, which at once encountered a very large stone, lying quiet in a sac, in the lower part of the bladder. As the operation was likely to prove a critical one, not only from the size of the stone, but also from the diseased urethra, and the manner in which the femur was fixed across the perinæum, Dr. W. advised the patient to enter the Hospital.

The bladder not being very sensitive, the operation was done, without ether, in the following manner: The pelvis of the patient was elevated by means of the ankylosed femur, which was supported on the shoulder of an assistant. Water being injected, the instrument was passed under the femur into the bladder, some manipulation being necessary to obviate the lateral turn in the urethra. The stone, before being caught, required to be fished up out of the hole in which it was stowed away. It measured about two inches in diameter.

Six operations were required, and the man has just left the Hospital well. The only trouble experienced in the course of the operations was from large bits of stone being twice lodged

near the end of the urethra, from which place they were dislodged by breaking them down with the forceps, and removing them piecemeal.

Typhoid Fever: The Thoracic Form. Its Treatment. By Dr. BEHIER, Physician to the Hospital Beaujon and Adjunct Professor to the Faculty of Medicine, Paris. Translated for the Southern Med. and Surg. Journal, by J. J. WEST, M. D., Demonstrator of Anatomy in Savannah Medical College.

The assemblage of symptoms which, in the course of certain Typhoid fevers, are manifested on the part of the respiratory apparatus, known as predominant phenomena, constitutes, by common consent, one of the most serious forms of these affections. Observed separately in each patient, this form can show itself under an appearance more or less distinct, and thus evince, not an *epidemic*, as it has been too often called by an abuse of the word, but a peculiar physical constitution. If it is desired to study attentively the circumstances in which these sorts of constitution are developed, it would be easy to demonstrate, I believe, that in the larger number of cases these pathological manifestations, thus attributed to a certain number of individuals, ought to be classed among constitutions influenced by seasons, upon which the older physicians insisted so justly, and the study of which has been perhaps too much neglected in later times and even at present.

But it is not with this part of the question that I wish to occupy myself here; the part upon which I propose to insist, relates to the thoracic form of continued fevers, and is more immediately practical. I desire to call attention to a mode of treatment which has yielded the most satisfactory results in the cases in which I have put it in use, and which has equally well succeeded in the hands of another hospital physician, my friend, Dr. H. Bourdon, to whom I had mentioned it. It is the application, in great numbers, of *dry-cups* upon the thoracic parietes, and also, and especially, upon the inferior extremities. It was in reflecting upon the following observations that I was led to the trial of this means: experience has since demonstrated its efficacy.

The thoracic phenomena which may be observed in typhoid fever are of a peculiar nature, of which it is necessary to render an exact account. Exclusive of cases, very rare, however, in which a phlegmasic complication, a true pneumonia unites

itself to the primitive pathological element, the disorders that are manifested in the pulmonary organs, are nothing less than a congestion analogous to that which might occur at different parts of the surface. These wide surfaces, of a sombre red, not painful, presenting no augmentation of heat, which may be observed at diffused points of the skin in subjects attacked by typhoid fever, and which sometimes occupies the arm or fore-arm, sometimes the face, the nose or cheeks, can, it seems to me, explain the mechanism of pulmonary congestions which are found, but with a variable degree of intensity, in all the subjects attacked by this disease.

They offer, as cutaneous congestions, the passive character; even the *weight* plays a part in its development, to which the attention of pathologists has been called for a considerable time. These congestions answer, in effect, to that which has been designated at first under the name *hypostatic pneumonia*, a designation which Prof. Piorry has since modified into that of *pneumonia hypostatic*. At the present time, nothing more is seen in these states of the lung than a phlegmasia of the parenchyma, a veritable pneumonia. The diminution of sound observed on percussion, in almost the whole of the chest behind, and which is not enough to constitute a true dullness ("matile"), the rudeness of the "bruit respiratoire," which is far from being a bronchial souffle, the more marked distinctness of the voice, which does not amount to broncophony, and the mucous or subcrepitant rales which persist without offering the true character of the crepitant, and without passing to the bronchial souffle; all these signs, I say, indicate plainly a certain augmentation of the density of the lung, but cannot suggest the idea of a true hepatization. The anatomical examination itself establishes clearly the order of lesion to which these signs correspond, and it would now be awkward to consider as a proof of a phlegmasia of the pulmonary parenchyma, the dark and red color of this tissue, even after observing that the lung does not contract upon the opening of the chest, as does the lung in a healthy state; that it is a little more friable, that it does not crepitate under pressure of the fingers, and that it sinks in a vessel of water, instead of swimming upon this liquid when a small part is subjected to this proof. Insufflation, in fact, renders to the lung thus modified, a part of its normal appearance, which is impossible in the truly inflamed lung, and shows clearly that if the lung is densified by the determination to, and stasis of, a sufficiently considerable quantity of blood, there is not in the substance of its tissue any effusion of a plastic nature, the only anatomical character of a phlegmasia. Besides, in a case of simple congestion, a direct inspection of the incised surfaces permits the

recognition of the different elements which compose the pulmonary parenchyma—elements which, in inflammation, are no longer perceptible, agglomerated and confused as they are by the plastic infiltration which determines the phlegmasia.

MM. Legendre and Bailly, in insisting upon these distinctions, have assuredly rendered a great service to the science.

The pulmonary lesions observed in typhoid fever, are then, the result of a simple congestion, of little intensity in some patients, very violent in others, either on account of individual disposition, or of a more general influence. This influence may even add another element, and in some patients, it is perceived that to the congested state mentioned, is added an affection of the bronchiæ, a kind of capillary bronchitis of which the finer rales, and the expectoration of puriform sputa, of almost nummular form, with dyspnœa as the most prominent traits. One of the patients that we have observed, and whose history we give further on (obs. 6), offered an example of this complication. When it exists, this catarrhal bronchitis, as it has been called, is a new cause of a more considerable congestion in the pulmonary tissue; it there exaggerates the already existing disposition.

It is when this congestion takes a considerable development, whether or not it be exaggerated by the bronchitic element I have indicated, that the signs of a pulmonary asphyxia appear—signs, the augmentation of which is rarely rapid, but ordinarily gradual. Among these signs should be mentioned the anxious aspect of the face, the bluish coloration of the cheeks and lips, dilation of the alæ of the nose, more marked dyspnœa, which, however, hardly ever increases as far as a state of orthopnea; it is then that the rales are multiplied in the chest, and a danger which is immediate and often very difficult to remove, menaces the patient.

The therapeutic indication in such a case is, then, to free the lung of blood which flows to and rests there, and serves to render this organ too passive to expel the liquids which obstruct it, on account of the elasticity which it has lost, and which is necessary to the integrity of its functions. Blood-letting, often practiced in like circumstances, removes from the pulmonary tissue a part of the venous blood which accumulates there, but it cannot, on one side, be pushed very far without inconvenience to the general condition of the patient, always under the influence of an adynamic tendency; and upon the other side, in drawing from the patient a part of his strength, blood-lettings tend to augment the passive condition of the lung. These considerations should tend to banish from practice, in such cases, the use of sanguineous abstractions—even the local. It has been sought again, to fulfil the indica-

tion by disengaging a part of the bronchiæ of their mucosities, by the use of emetics, at the same time that tonic preparations, especially those of cinchona, aid in sustaining the advantages obtained with the aid of the concussion produced by vomiting. This treatment is assuredly reasonable, but it ought to be limited. Struck with the insufficiency of these means, I have sought to aid them, and, in considering the mobility of cutaneous congestions in persons laboring under an attack of this disease, convinced above all, of the congestive nature of the pulmonary disorders, I found myself forced to discover a means of disgorging the lung—a means not borrowed from a spoiliative therapeutics, and only a simple means of displacement.

I at first thought of employing the Junod cup; but besides its never being procured with promptness in our hospitals, it has the inconvenience of easily producing syncope, accidents which might be attended by the saddest consequences in the patients we have to treat. It was then that I attempted the application of *dry-cups*, placed in considerable numbers on the chest, and particularly upon the inferior extremities. I have gone so far as to apply on one patient from 60 to 80 of these cups, morning and evening. The evening application is necessary, for opposing the return of the congestion removed momentarily by the derivation already exercised in the morning; and this tenacity of *action* is not too much against a *disposition* equally tenacious. Under the influence of these cups may be observed very large ecchymoses, which are formed in the places where the cups had been placed. These ecchymoses persist during a time more or less long, but I have never seen them followed by any accident whatever, although upon some patients the number of cups has been more than 500 in ten days. Never have I seen gangrene, nor even suppuration, against the presence of which evils I have always prepared myself, especially in my first trials of this means, which was two years ago. I desired to wait some time, and to multiply experiments, before publishing the utility of this mode of treatment.

The following facts will serve as examples in confirmation of what I have advanced:

OBSERVATION I.—*Typhoid Fever, of the thoracic form, in a young woman; emetic; 120 dry-cups in three days. Cure rapid.*

Nickley (Sidonie), 20 years, a servant, unmarried, habitually well regulated, has never borne children, has never had any other disease than the measles. Actual affection commenced May 12th; its accession was slow; the patient had pain in the head; strength diminished; at the commencement

she had a slight diarrhœa and a little cough; difficulty of respiration during several days. She has had no treatment, and has not even remained in bed until her entrance into the hospital, the 20th May, 1855.

May 21st. 104 pulsations per minute, pulse small, tolerably hard; skin hot, face red, cheeks and lips bluish; eyes prominent, humid; extreme difficulty of respiration; sound of the chest normal; mucous and sonorous rales very abundant on both sides, especially at the base of the lung behind; tongue a little shining; loss of appetite; abdomen slightly enlarged; gargouillement in the right iliac fossa; no diarrhœa; some rose-colored lenticular spots disseminated upon the abdomen and lower part of the thorax; head heavy; great muscular debility. *Prescription*: 15 grs. pulv. ipecac; sinapisms upon the inferior extremities.

May 22nd. Has vomited well; two stools; 112 pulsations, small; extreme difficulty of respiration; sound of chest less normal, without real matite; expectoration of white mucus; some rales in whole extent of the chest; face and integument of the hands still violet; she breathes better in the almost sitting posture she has been made to assume. 15 grs. ipecac, 40 dry-cups upon the thorax.

May 23rd. Abundant vomiting of colorless mucous matter. Oppression has greatly diminished since the application of the cups; the skin is still of the same dark red color; headache less; abdomen soft; skin cool; has a little appetite; 110 pulsations, small and hard. 15 grs. ext. cinchona, 40 dry-cups.

May 24th. Sound of the chest perfect; still a few rales at the base behind; pulse small, sufficiently developed; skin cool; face less colored and less anxious; she regains her natural expression. 40 dry-cups, lichen two portions, 23 grs. ext. cinchona.

May 25th. From this time the patient does well; appetite has returned; the skin and mucous membranes lose their violet hue; the respiration is natural; abdomen soft; bowels quiet; no more headach; and the 3rd June the patient eats her full allowance.

This observation offers, at the same time, an example of the predominance of thoracic phenomena, and the rapid effect of dry-cups applied in great numbers. The thoracic form was so plainly the predominant element, that once this order of accidents was removed, convalescence was rapidly established.

OBSERVATION II.—*Typhoid Fever, with adynamic state—pre-dominance of thoracic symptoms; 4 cups (scarified); 160 dry-cups; extract of cinchona; cure.*

Jette (Francois), 28 years, bricklayer, enters hospital Oct. 16, 1855, "Salle Beaujon," No. 62: Says he had the same disease five years since; remained about two months in the Bricklayers' ward, "hospital Beaujon;" has lived at Paris since he was 8 years of age. For the last fifteen days has kept his bed without calling a physician or doing anything for himself; has had severe diarrhoea—no epistaxis. This period had been preceded by a state of general debility and occasional giddiness, which, however, still permitted him to work.

Oct. 17th. 120 pulsations, pulse small; skin hot; violet color of the skin, especially of the face and extremities; lips violet; nares dusky; abdomen tympanitic, numerous lenticular rose-spots; diarrhoea considerable; tongue covered with a grayish coat, very thick; trembling of the tongue; difficulty of speech; no headache; cough frequent, without expectoration; in the whole extent of the chest, an abundant rale presenting a mixture of the sibilant and mucous rales; no absolute matile; sonorousness is only moderate in all the chest, posteriorly; want of sleep; agitated during the night. Ext. cinchona 7 1-2 grains, 4 scarified cups on the chest.

Oct. 18th. Restlessness during the night—104 pulsations; skin hot and dry; tongue trembling; abdomen tympanitic; gargouillement in the right iliac fossa; violet color of the integument; troubled respiration; conjunctiva injected; same state of the chest on auscultation and percussion. Julep, with ext. cinchona 30 grains, 30 dry-cups on the chest; bath in the ward; beef-tea twice.

Oct. 19th. The cups have considerably relieved him—they have left on the chest spots of deep red color, with no trace of vesication; tongue trembling, still covered with a thick coat, but not completely dry; nares dusky; diarrhoea abundant, involuntary; agitation, no sleep; the cough is less, rales a little less abundant. Julep, cinchona, 10 dry-cups.

Oct. 20th. 108 pulsations; skin cool; desires to eat; disseminated rales heard in the chest; cyanosis of the face is less intense. Julep cinchona, 10 dry-cups on the chest.

Oct. 21st. Does well; has slept during the night; wants to eat; tongue clean; thorax is sensibly relieved; rales rarer; less mucus. 30 dry-cups on inferior extremities.

Oct. 22nd. Same state. 80 dry-cups on inferior extremities; soup four times.

Oct. 23rd. Color of the integument almost normal; abdo-

men soft, indolent; chest almost freed; diarrhoea still involuntary; has appetite. Soup four times.

Oct. 24th. Amelioration increasing; tongue clean; respiration normal in the whole extent of the chest; has become more sonorous; diarrhoea still involuntary; has appetite. Injections of starch and laudanum; soup four times.

Nov. 1st. Appetite strong; 80 pulsations, small; skin cool; sleeps well; tongue moist; still a little diarrhoea in bed; some cough, but without rales perceptible to the ear. The state of the intestines becomes gradually modified, and the patient quits the hospital about twelve days after, cured.

In this patient, as has been seen, the relief was prompt, especially at the moment when the cups were applied in great numbers (18th October).

The employment of this means has not, however, appeared to have any effect upon the intestinal phenomena, which continued many days after the favorable termination of the thoracic symptoms.

[The history of the four following cases, would occupy more space than is necessary to prove the success of this mode of treatment. I therefore abridge the account of the author, noting only those complications which might influence the practitioner in deciding on its employment, and perhaps prevent it, if he had not the experience of others to support him.—TRANSLATOR.]

OBSERVATION III.—*Typhoid Fever*—"a forme Thoracique;" employment of dry-cups to the number of 460. Cure.

Jan. 31st, 1857. Mary Poussot, domestic. The answers of the patient are short, announcing an intelligence, either naturally weak, or enfeebled by the disease; sick fifteen days; chills, pains in back and limbs, diarrhoea, want of appetite, great thirst; cough intense, without expectoration. These symptoms have existed from the commencement.

Feb. 1st. *Actual state*, decubitus dorsal; extreme debility; complete immobility—rising impossible, even to take medicines; face bloated; eyes dull and half closed; tongue dry, rough, of a dirty gray in the middle, bright red at the point, lanceolated; lips and gums sooty; upper teeth black; mouth bitter; tympanitic; gargouillements abundant; five or six stools a day; pulse 112, small, contracted, regular; skin hot; respiration painful; humid rales in whole extent of the chest; cough frequent and fatiguing; no expectoration; diminution of sonorousness, but not real matite; sensation of heat general; almost complete deafness; no headache; continual somno-

lence; tranquil delirium; very numerous spots on the abdomen and the whole of the chest. 22 grs. ipecac, in three doses, 60 dry-cups on the inferior extremities, 30 grs. ext. cinchona.

Feb. 2nd. A little better; is less oppressed; cough troublesome; less delirium; less somnolence; less diarrhœa; pulse 112. Rales about the same; face less bloated. Extract cinchona, 30 grs.; 80 cups on inferior extremities—40, morning and evening. Injection of 12 gtt. laudanum, and 5 grs. musk; sweetened gum water.

The cups of yesterday have left large ecchymoses upon the thighs of the form of the glasses used.

Feb. 3d. A little coma; sleep agitated; respiration easier; cough less fatiguing and loose; the rales have diminished notably; expectoration mucous, but not abundant; pulse 96; skin hot; some tinnitus aurium; giddiness. Same prescription; 80 cups in two applications; 18 grs. ipecac.

Feb. 4th. In about the same condition; rales "a grosses bulles," throughout the chest; pulse 92; skin less hot. Same prescription; 80 cups; ipecac.

Feb. 5th. The patient is sensibly better; pulse 84; skin less hot; deafness decreased; rales diminishing; oppression sensibly ameliorated; coma less; delirium hardly appreciable; 80 cups; beef-tea twice, soup twice. Same prescription.

Feb. 6th. Oppression hardly exists; general improvement; tongue about the same; pulse 80 to 84; skin without great heat; 80 cups. Same injection, same prescription.

Feb. 7th. Respiration free; few rales; no cough; no expectoration; general state satisfactory; pulse 72 to 80; intellectual state much better. Omit the cups, continue rest of prescription.

Feb. 8th, 9th, and 10th. General improvement; continue prescription and diet.

Until the 19th, when she left the hospital, there was the same improvement, with the exception of pain in the right shoulder, on the 15th, which was speedily dissipated by the use of a small blister.

OBSERVATION IV. *Typhoid Fever; vomitives; application of 530 dry-cups on the inferior extremities.*

Feb. 19th, 1857. Elizabeth Pausser, aged 22 years, a domestic—has resided in Paris six months—was confined two months since; has never been perfectly well since, on account of too severe work.

Feb. 20th. *Actual state.*—Extreme prostration; complete immobility; gums are brown, covered with sordes to the teeth; tongue dry, brown in the centre, red at borders and point;

mouth dry; deglutition easy; no nausea, no pain in the abdomen; four liquid stools, yellow, sometimes involuntary; urine scanty, difficult and painful to emit; complete inappetence; thirst great; sonorous rales throughout the chest; cough frequent; expectoration mucous and tolerably thick; dyspnoea: pulse 112, small; skin hot and dry; severe headache, eyes half closed; complete deafness; spots on the abdomen pretty numerous. Sweetened gum water, two glasses of sidlitz water in the morning, 15 grs. ext. cinchona in the evening; beef-tea 4 times.

Feb. 21st. Pulse 112; skin hot and dry; tongue very dirty; little diarrhoea: thoracic phenomena the same, without any more intensity. On account of the state of the tongue, tart. antimony gr. 2-3, 15 grs. ext. cinchona, for the evening.

Feb. 22d. Emetic acted three times; little diarrhoea; pulse 112, small, compressible; skin less hot. Same prescription, less of tart. antimony.

Feb. 23d. Respiration much more embarrassed. On both sides, and at the summit of the chest sibilant rales are heard, mucous rales very abundant everywhere else; otherwise, same general state. 30 dry-cups on inferior extremities, rest of prescription *ut supra*.

Feb. 24th. She says that the cups have given her great relief, and asks for them again; in fact, the chest dilates better, and respiration is less painful. The pulse is 116, compressible; skin hot; tongue more humid; epistaxis for the first time. 30 dry-cups, ext. cinchona 15 grs., beef-tea 4 times.

Feb. 25th. A little delirium: pulse 112; sacral region red: state of chest nearly the same. 50 cups, injection of 5 grs. musk, 3 iss* laudanum.

Feb. 26th. Less oppression; the rales and dyspnoea are less marked; delirium more calm. 50 cups.

Feb. 27th to March 7th. 50 cups, 40, 40, 40, 30, 30, 30, 30, 30. Other treatment consisted of ipecac, cinchona, wine, beef-tea, etc., according to indication. On the 28th, she left the hospital perfectly cured.

OBSERVATION V. August 14th, 1857. Eliza Roger, aged 22 years—sick more than a month—miscarried ten days since, at six and a half months; the lochia flows still. Actual state, very much like that of Observation IV. 2 glasses seidlitz

* The original reads 6 grammes, equal to $1\frac{1}{2}$ drs. of our measurement, evidently an error. From what I have seen of the practice of French physicians, I would hardly believe that the amount given was one-fourth of that quantity. They give opium in smaller quantities than we do.—TRANSLATOR.

water, 100 dry cups (50 morning and evening), beef-tea and soup. The treatment of this case, up to the 21st, was that of the cases mentioned above, consisting of cinchona, laudanum, enemas, soups, etc.; 50 dry cups morning and evening, daily. The improvement of the patient was marked—cough lessening; rales diminishing; tongue becoming cleaner; sleep good; diarrhœa less; pulse less frequent. On the 21st, the cups were discontinued, diarrhœa became abundant, but the chest seemed to be doing well. Laudanum enema.

[Although the cups were no more used in this case, still the disease having assumed a new phase, demanding a different course of treatment, and the treatment of this particular patient illustrating that of the French generally, I will give the author's account in full; and as it was successful in this instance, it may be of practical benefit to some of the readers of the Journal.—TR.]

Aug. 22d. The cough became again very painful; rales are heard anew throughout the chest; the sputa are bronchial with some filaments of brownish blood; sleep is impossible, on account of the frequency of stools. Gooseberry syrup; continue enema (laudanum gtt. xij.); beef-tea, 4 times.

Aug. 23d. Diarrhœa still more frequent. Add to prescription a potion, with 4 gtt. laudanum.

Aug. 24th. At night, on the 22d and 23d, she had some vomiting, of which no mention was made at the visit of yesterday. Yesterday evening the vomiting recommenced, accompanied by a liquid diarrhœa, very abundant, white, persisting; dejected aspect; eyes sunken, surrounded by a bluish circle; indifference to surrounding objects; immobility; visage wasted; speech feeble, slow—complaints of suffocating; pulse 100, hardly perceptible; blue voluminous veins are seen upon the chest; skin cold; pulsations of the heart barely perceptible. It is impossible to know if the patient urinates, the stools being involuntary, may be mixed with urine. The potion of laudanum prescribed yesterday was vomited on the spot; in the evening, the interne of the ward, prescribed ice; gum julep 3 v, with rum 3 ij; diet.

Aug. 25th. She vomited but once during the day of the 24th, but in the evening the vomiting recommenced and lasted all night. She has had but one stool, which is yellow; she appears a little better. Her pulse is a little increased in frequency (112); the skin has resumed its heat; face less pale, but the eyes are as much sunken. Same prescription.

Aug. 26th. Reaction is fully established; pulse 108; skin hot; face red; eyes sunk. Still some vomiting, but no diarrhoea. Urinated yesterday. Ice; beef-tea twice.

Aug. 27th. In the night, vomited considerable quantity of bile, in which there floated numerous white clots; pulse 108. small, dicrotic; skin hot; face red; eyes less sunken; extreme debility; three diarrhoeal stools; tongue moist, lighty white; no headache; great thirst. 2 large enemas, with 12 gtt. laudanum in each; ice; soup twice.

Aug. 28th. Pulse 108; skin very hot; vomiting continues: diarrhoea. Continue enema potion with rum 3 iij; ice; diet.

Aug. 29th. She has again vomited this morning, a green liquid; tongue a little swollen, yellowish gray; pressure upon the right iliac fossa determines pain; abundant diarrhoea; urinates easily; pulse 100, dicrotic; eyes less sunken, visage good. The patient says she does not suffer; aspect better. Continue the treatment.

Aug. 30th. She has vomited a little, but her visage has assumed its normal aspect; slept all night and without waking; mouth bad; diarrhoea; pulse 96, dicrotic. 2 large enemas with laudanum 12 gtt.; beef-tea 4 times.

Aug. 31st. Has not vomited since; tongue humid, hardly white; thirst; a little appetite; no diarrhoea; sleep good. Laudanum enema; half portion (hospital diet).

September 1st. No more vomiting; no stools for two days; aspect good; face rose color; eyes not sunken; pulse 96, scarcely dicrotic; tongue humid; sleep good; ate with pleasure. Demi-portion.

Sept. 2d. Continues better. One portion.

Sept. 5th. Doing very well; tongue rose-color, humid; appetite; little thirst; no diarrhoea; pulse 68; skin cool. 1 portion.

On the 7th, she ate some unripe grapes, followed by diarrhoea on the 8th: that evening vomited a little, also at night. Pulse 96; skin hot. 2 enemas, laudanum gtt. xij, in each.

Sept. 10th. This new indisposition was followed by no results. Left the hospital well.

Here again is seen the modification obtained by the use of the dry-cups, and the return of the epi-phenomena at the moment they were suspended; the intercurrent choleraic symptoms rendered a new employment of this means useless.

In the observation about to follow, the commencement of which did not pass under my eyes, I will call attention to the nature of the expectoration, which was at first composed of sputa of a yellowish color, thick, rounded, nummular, quite analogous to those observed towards the end of the measles, and which presented afterwards some sanguinolent striae.

The generalization of the rales, their seat, the summit, the lively heat of the skin, the small number and doubtful appearance of the spots—all in a woman, blonde, chlorotic—could give rise to doubts, at first sight, upon the diagnosis, and lead to the impression that we had to do with an acute phthisis. The intestinal phenomena, and the march of the disease, assisted us in avoiding that error.

OBSERVATION VI.—*Typhoid Fever, "a forme Abdominale" in its debut; thoracic phenomena towards the twenty-second day 200 cups; ext. cinchona. Cure.*

Eliza Legarois, age 15 years, domestic; always of good health; not yet menstruated—has lived in Paris only one month. Two or three days after her arrival at Paris, she was taken with a bad headache, which persisted, eblouissements. (to which she is subject); cough, with oppression; diarrhœa not abundant; complexion dull and white, hair light, mucous membranes pale, continued souffle in the vessels of the neck.

On her entrance, Sept. 23d, about the eighth or tenth day of the disease, a typhoid fever "a forme abdominale," with symptoms not grave, was diagnosed.

During the first days of October, the cough augmented in frequency and intensity; she became more oppressed.

Oct. 11th. Besides the abdominal phenomena slightly marked, I found, in the chest, numerous rales, offering towards the two summits, characters of the sibilant, and towards the middle, as far as the base, a mucous stamp, especially on the right side. Apply 40 dry-cups on inferior extremities; sweetened gum water; ext. cinchona 7 1-2 grs.

Condition of the patient Oct. 12th. Coughs as much as during the preceding days, but says she is less oppressed since the cups were applied, and expectorates more easily. The sputa resemble those of a bronchitis at the period of *cœction*; they are yellowish, thick, rounded, much striated with brown blood, (proceeding from the fauces,) and in no way analogous to that of pneumonia; tongue tolerably humid, glutinous, wide at the points, yellowish-gray at base and middle; mouth bad; no appetite; considerable thirst; a little diarrhœa; two to five stools; gargouillement pretty abundant in right iliac fossa; no pain on pressure of the abdomen; no well-marked rose-spots; no sleep; pulse 96, skin a little hot. Percussion indicates nothing very abnormal in the chest, which, however, does not resound well; without real matite, especially on the right side. Auscultation reveals mucous and sonorous rales in all the chest—they are sibilant towards the two summits, and mucous at the base and middle parts, posteriorly, particularly on the

right side. Ext. cinchona, grs. xxx.; pil. opium, gr. 2-3: coffee, f 3 iv.; 40 dry-cups.

Oct. 13th. Coughs as much—is also oppressed; does not sleep; same sputa, still sanguinolent, abundant. Same prescription.

Oct. 14th. Oppression a little less; rales still abundant, although less numerous; tongue cleaner; pulse less frequent (88), skin but little hot. 40 cups.

Oct. 15th. Still much oppressed; sonorous rales throughout the chest, intermixed with less of the mucous; little sleep, pulse at 88, skin less warm. 40 cups.

Oct. 16th. Says she is much better; she respire more easily; the rales have much diminished, and the sonorous rales are rarer; sonorous rale is better marked; cough less painful; expectoration easy; the sputa are less thick, less yellow, but little striated; tongue moist, wide, whitish; no thirst; a little appetite; pulse 68, regular; skin cool. Omit the cups; two eggs, and a little bread; ext. cinchona 30 grs.; sweetened gum water for drink.

Oct. 17th. Pulse 48, regular; skin cool. It is with difficulty that one hears a few rales in the chest. No diarrhoea; expression much better and more gay; on the whole, she does well. Bordeaux wine, 3 iiiss., cinchona 30 grs., one portion.

Oct. 18th. Pulse 60; skin cool; does well. 19th. The patient feels well, has a good appetite, sleeps well; only she is feeble, and when she desires to rise and walk she falls—not that she has attacks of giddiness, but her legs bend under the weight of her body.

This condition still improves; the respiration to-day (22d October) is everywhere pure, without mixture of rales: no expectoration; the diarrhoea has disappeared; pulse from 60 to 64, it assumes a little consistence; appetite is excellent: debility and palor are the only symptoms which persist.

I could add to these facts many others, which would only be a repetition. I hope those which precede will appear conclusive in favor of the means which I propose—which, I repeat, has given most satisfactory results to my friend, Dr. H. Bourdon, upon the patients observed by him at the "Hospital Laribosiere." I will insist upon the complete harmlessness of this mode of treatment; never have I observed any local disorder follow the application of dry-cups, and never has this derivation, although very energetic, determined any trouble in the economy, probably because it is, so to say, gradually effected. This harmlessness is, then, one motive the more why we should not hesitate before the employment of this means.

It has been remarked, also, in some of these observations, (obs. 2, 3, 4,) that somnolence, tranquil delirium and deafness, have seemed happily modified by the use of this means. I have seen, in some other cases, the application of dry-cups in great numbers, calm the tranquil delirium and dissipate promptly both somnolence and coma, notably, in a little patient of 15 years, observed in October, 1855, at the "Hospital Beaujon." In these last cases, the cerebral phenomena were predominant, and nothing very well marked was determined on the side of the lungs. The utility of this powerful derivative in comatose forms of the disease, appears to me more than probable; but I have not, so far, studied the fact in a sufficiently rigorous manner to form a precise opinion on the subject. As for the ataxic forms, with violent delirium, in three cases where I attempted to employ this method, it gave me no result, and the opiate preparations, in doses sufficiently strong, united with musk, appear to me to be much preferable.—*Archives Generales.*

Extracts from the Records of the Boston Society for Medical Improvement. By F. E. OLIVER, M. D., Secretary.

Jan. 25th.—*Inoculation of Secondary Syphilis.*—Case reported by Dr. W. E. TOWNSEND.

Mrs. W., a respectable woman, of fair complexion, always enjoying good health, whose family Dr. T. had attended for several years, took, January 10th, 1856, a child five days old to nurse; observing that it had an eruption on its skin, she confined it to one breast, reserving the other for her own infant. This eruption, she said, resembled the chicken pox; there was no soreness or discharge from the mouth or nose: the child nursed well and throve till about the last of March, when the eruption, which had gradually grown more livid and distinct, formed scabs, and these shortly falling off, left ulcers in their place. Three weeks before its death a sore appeared in the nose, and a discharge ran from its interior: still there was no difficulty in the mouth, which was several times examined by the nurse in search of swollen gums, neither was her nipple at any time inflamed. The child growing worse and more uneasy, she permitted it to lie all night at the breast. After ten days, feeling much irritation there, she frequently rubbed her breast above the nipple, and, finally accidentally scratched it about an inch above that point. This scratch continued to be exposed to the secretions from the nose, and on

the 18th of May, just before the child died, she noticed a pimple, with a hard scab on it, at that spot. This being painful, was poulticed; when the scab dropped off it left a sore, which increased until it became a circular ulcer an inch in diameter, with everted edges, presenting the appearance of ordinary syphilis, so that two medical friends of experience who saw it, at different times, without knowing its history, said "that is a venereal sore in a curious place." Under constitutional treatment this healed in three weeks, and was followed in three more by a copper-colored eruption and sore throat, which last continued about a month, and finally yielded after the continued use of bichloride of mercury. The mother of the child, fearing that it would return to her, denied that she had ever had any syphilitic disease; but her character was bad, and the woman with whom she boarded, said, that when she was about three months pregnant, she was confined to her bed for seven weeks with syphilis.

Is there any evidence in this case that the child had a primary chancre in its mouth or nose? If it had, there was no sign or suspicion of it for three months, during all of which time it nursed without trouble and thrived well, the nurse not having, all that time, any soreness of her breast or nipple.

What was the character of the sore with which she was at last inoculated? It looked, to the eyes of three medical men accustomed to the disease, like a venereal ulcer, and was followed, after it healed up, by well-marked constitutional symptoms.

With regard to this case, Dr. H. J. Bigelow expressed a doubt as to the character of the ulcer upon the breast, stating that the probabilities were, in his opinion, against its being of a syphilitical nature.

Dr. Cabot mentioned a case in which a child inoculated the nurse, who afterward had secondary symptoms. He supposed the child to have had a chancre, although he did not verify his opinion by an examination. The child afterward died. He had seen a child with a true chancre in the mouth, and thought its existence in this part easily explained.

Dr. Bethune thought that a secondary ulcer may take on the appearance and character of chancre.

Dr. Bigelow replied that a secondary ulcer may, in some instances, take a retrograde course and put on the appearance of chancre, but he thought this due to collateral circumstances.

Dr. Bethune alluded to the case of a gentleman whom he met in Europe, who had a scar upon the forehead, of the size of a fourpence, and depressed—caused, as he stated, by a chancre.

Dr. Bigelow supposed this to be a tertiary ulcer, affecting the cellular tissue.

Dr. Gay mentioned a case that occurred at the Hospital, which he thought somewhat resembled that reported by Dr. Townsend.

The patient, aged 14, entered the Hospital, October 6, 1857. The history of the case, as given by the mother, was as follows:

Nine years ago, she (the mother) nursed a woman who had sore nipples, and who afterwards proved to be laboring under syphilis. She and her little daughter drew the milk. A week after, they both had sore mouths, and in a short time the throat of the mother became so much affected that she was able to swallow only liquids. She got well under the use of mercury, but had several relapses, and in seventeen months entered the Hospital, with sore mouth, raised tender spots on scalp, and a node on each tibia. She was treated with iodide of potash, and in a month discharged, much relieved.

From the time of nursing this woman, the child was always liable to ulcerated sore throat. She always had, she said, "sore mouth" whenever she took cold. Nine months ago, after a severe attack of this trouble, the soft palate became affected, and at the present time the ulceration had so progressed as to have destroyed the uvula and a portion of the velum on either side, leaving a triangular opening, with ragged edges. The anterior pillars were also destroyed. The whole of the soft palate and back of the throat were much inflamed, and on the latter there were whitish patches of ulceration. The nose, especially at its upper part, was much depressed. The cartilage of the septum was perforated, the opening being about the size of a small pea. She spoke as though she had a fissure of the soft palate, and was unable to swallow solid food.

This patient recovered in six or seven weeks, under the use of the hydriodate of potash, tonics, &c. While at the Hospital, a long thin piece of bone, apparently the vomer, came away from the nose.

Dr. Bigelow remarked that this was one of those cases which are necessarily involved in much obscurity. He had this patient at the Hospital, but did not believe her statement, thinking it far more probable, admitting the disease in this case to be of a syphilitic nature, that she inherited this constitutional tendency from her parents, than that she took the disease in the way suggested. He, however, did not regard the case as of this nature, but as one of scrofulous lupus.

To illustrate the difficulty of sometimes recognising a chancre, Dr. Gay alluded to the case of a gentleman who had an

ulcer upon the end of one of his fingers, and who consulted several surgeons of Boston with regard to it, no two of whom were agreed as to its true character. Dr. Gay told him that it looked like a chancre. Six weeks afterward he went to New York, and while there consulted an eminent practitioner. About this time he had an eruption upon the body which determined the surgeon to regard the case as syphilitic, and he treated it accordingly, giving the bichloride of mercury, and the patient returned home well.

Dr. Bigelow said that he had this patient under treatment for some weeks, and regarded the case as one of scrofulous tubercle; recommending active exercise and travel. He went to New York by his advice, and he believed it quite probable that the change of air and life alone had produced the good effect alluded to.

[With regard to the transmissibility of secondary syphilis, while Ricord and his school maintain that this form of the disease must necessarily be preceded by a primary sore, and is never itself communicable, there is a great and increasing weight of authority, both in this country and in Europe, in support of the theory that secondary syphilis may be, and often is, directly communicated, case after case having been reported which it would seem impossible to explain on any other supposition.

Velpeau, Mr. Porter of Dublin, Dr. Bennett of Edinburg, Mr. Whitehead and Wilson, Mr. Waller of Prague, Sigmund and Hebra of Vienna, Dr. Buckley of New York, and others, speak unhesitatingly in favor of the latter hypothesis. It will be sufficient to cite the opinions of two eminent clinical professors on this point. Dr. Bennett, in one of his clinical lectures, says of the secondary form of syphilis, that they are always the result of inoculation; but that they may arise not only from the poison being absorbed directly from a primary sore, but may be communicated by the mother to the fœtus in utero, by the infant to the nurse, and again by the nurse to the infant. (See *London and Edinburg Journal of Medical Science*, 1852, p. 570.)

Velpeau, at a recent meeting of the French Academy of Medicine (see *New York Medical Times*, February, 1856), stated that he did not hesitate to maintain that all, or nearly all, the manifestations of secondary syphilis are contagious. He bases his opinion on the general consent of physicians to its truth, and the daily experience of the profession, as well as upon clinical observations, the fact of hereditary transmissibility and the results of inoculation itself.—SEC'Y.]

Professional Etiquette and Deportment.

Nothing should be more scrupulously cherished by the members of our profession, than the observances of that etiquette acknowledged by common consent to be indispensable as a bond of brotherhood, a guaranty of justice, a tribute to courtesy and kindly feeling. Generally speaking, the more eminent and successful a practitioner is, the more scrupulous he is observed to be in his relations with other physicians. The obligations of the Christian religion, no less than the plain dictates of universal custom, bind the physician to such a course. Besides this, we hope there is a vast majority of our great army which is actuated by those social instincts and generous impulses which repel alike the selfishness and the injustice which unfortunately actuate many in every community.

That there are questions difficult to answer, relative to certain points in the intercourse of physicians, there is no doubt. Usually, the heart is the best court of appeal and adjudication in these cases. No upright man will knowingly do his brother practitioner wrong; and no gentleman will sneak into the place and business which properly belongs to another.

We have lately had our attention called to a matter deemed one in which "professional etiquette" is concerned; and we are willing to concede that there is ground for much uncomfortable feeling in that and in similar cases. In our issue for March 11th, 1858, a communication relative to the subject appears, from "Omega," in regard to which we may, not inappropriately, make a few remarks. "Dr. M." whilst in attendance upon a patient, is desired to call in a practitioner in consultation; he does so, selecting "Dr. T." The consultation held, and the opinions of the two physicians as to the management of the case being identical, the consulted physician takes "his hat" and his leave, "politely bowing himself out." So far, so good, says "Dr. M."; *but*, at the end of five days, he is dismissed and "Dr. T." is installed physician in charge.

Such are the facts, as we have received them. We can easily imagine that Dr. M.'s chagrin may have been extreme. Conscious of doing his duty, we conclude, to the best of his ability, and having his treatment of the patient ratified by the physician he had himself selected, it was certainly very hard to find himself supplanted by the latter gentleman. But we can tell Dr. M. that precisely the same thing happens, not infrequently, in this neighborhood. This may be some consolation to him, and it may not, but it is true. Now, in such circumstances, there are two or three lights in which to look

at the matter. First, of the patient and his friends. They have an undoubted *right* to change their physician if they choose. They should, we think, weigh the thing well before they act; and they have several points to consider. The advantage of the patient is one of the most prominent. If the case be a very alarming one, it is natural that the best advice should be desired, and if the consulted physician be especially devoted to the class of diseases under which the patient is laboring, the friends may deem it their duty to request him to remain in attendance. To be sure, if we have agreed with the previous medical attendant, there is less reason for them to desire the new arrangement; but still it is human nature, and very likely the attending physician would feel similarly inclined, were his own wife or child the patient.

The family, we think, ought to consider, also, whether it is really necessary to dismiss a physician in whose measures the consulted practitioner fully agrees, and who can readily have (as in a city) the benefit of daily conversations with the latter. Such circumstances make a vast difference, and will be duly estimated by those who respect the feelings and reputation of a faithful physician, who is confessedly managing his patient aright. But, although this be true, many persons cannot see or choose to ignore it, and, as we before said, they have a right to change their medical attendant, however well he may be conducting the case. Often, they may run a certain amount of risk in doing so, but the responsibility is their own; and this brings us to the second point for consideration, viz., the duty, and the policy indeed, of the attending physician. Upon an intimation that his services are to be dispensed with in favor of another, even of one whom he had himself called in to advise in the case, his obvious course is, courteously, quietly, and in a dignified manner, to take his leave. His pride and a true self-respect should lead him to repress the slightest demonstration of pique, mortification or anger. We knew a case of this nature not long since, in which the circumstances were almost precisely similar to those related by our correspondent. The announcement, however, very cruelly as we think, was left to be made to the physician in attendance by the invalid himself, then near his end, and totally unfit to encounter the agitation into which the communication threw him. Impelled to the above course by the solicitations of his family and friends, he, with tears and much feeling, declared their wishes. The physician gave way to the consultation, called in some time previously by himself—and his chief regret was that the last two or three days of his patient's life should have been disturbed by a scene which his friends might have spared him by taking the task upon themselves.

Thirdly, the consulted physician has his part to play. There are those who would decline taking the sole charge of a patient under such circumstances as we have set forth; and we confess that our own feelings would prompt us to such a course, were we so situated, especially if the attending physician not only called us in consultation, but was also perfectly competent to take care of the patient, could have daily communication with us, and was an old acquaintance and friend. On the other hand, many will decide that the consulted physician, in such an emergency, has no choice—he is bound to take charge of the case if requested to do so, without any regard to the fact of necessity therefor existing or not, or to the feelings of his friend and associate. This is a question of medical ethics about which there have been very decided expressions of opinion on both sides. Whilst we believe that it may generally be left to the conscience of the consulted physician to determine his course, we think that the welfare of the patient should be the paramount object in view; and if he, or his friends for him, decide that the change should be made, it is better that it should. Without it, in such a state of feeling as would exist, the chances are that the patient would suffer. Moreover, the attending physician must have very little self-respect if he could even *wish* to remain in charge, and still less wisdom, should he be loud in complaint at the usage he receives. It is better to bear the infliction in silence, in the enjoyment of the *mens sibi conscia recti*. Where there is no blame deserved, there surely need be no regret. We should suppose it must be far harder for the consulted physician to assume, than for the consulting to resign, the charge of such a case. The question for the former *should* be one of duty only—let us hope it is so frequently, it is scarcely to be presumed that it is so always—physicians must not expect an Elysium upon earth.

A few words may not be out of place relative to the effect of *deportment* in the sick-room. Undoubtedly a polite, considerate and attentive manner enlists the hearts of patients and their friends, and wins their adherence much more readily and surely than the bluntness, carelessness or slovenliness which is often wrongly supposed to indicate the possession of an unusual amount of capability in the person manifesting it. Indeed, the latter mistaken idea has not infrequently led very well-meaning, but somewhat thick-headed doctors to assume an eccentricity (as they understood it) which ill befitted them. Abernethys are rare, we opine: and not many can safely venture to swear and bully like a Danforth. Physicians generally find themselves best received in good society, when they conform to the manners recognized as characteristic thereof.

A lady who is ill, surely needs a gentlemanlike treatment as well as medical advice, and clean linen upon those who enter the sick-room must be vastly more agreeable than its opposite. All invalids, of whatever class, turn at once with more confidence to the gentle and courteous practitioner, than to the coarse, loud-voiced, heavy-footed, and constantly expectorating, albeit very excellent one. Kind, considerate and courteous manners imply no lack of firmness in emergency: on the contrary, there is no truer sentiment than that

“The bravest are the tenderest—
The loving are the daring.”

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Human Histology in its Relations to Descriptive Anatomy, Physiology and Pathology. With four hundred and thirty-four illustrations on wood. By E. R. PEASLEE, A. M., M. D., Professor of Physiology and Pathology in the New York Medical College; of Anatomy in Dartmouth Medical College; and of Surgery in the Medical School of Maine; Member of the American Medical Association, etc., etc. Philadelphia: Blanchard & Lea, 1857: pp. 616. (For sale by Riley & Co.)

This, we believe, is the first American work that has made its appearance on the subject of which it treats. As a consequence, it ought to be entitled to more than ordinary consideration.

The department of which this volume takes charge, has rapidly, of late, grown into favor. A number of books, within the last quarter of a century, has emanated from the press of Europe. The one before us, however, is the first from an American author.

Although the subject seems new, the material for it commenced being accumulated a good while ago. Indeed, it is surprising to look into the antiquity of what we have been in the habit of regarding as a recent science. To Malpighi and

Leeuwenhoek we are indebted for having taken the first steps in histology.

In the year 1673, the name of the immortal Leeuwenhoek first appears in the philosophical transactions of England as the discoverer of numerous wonders by aid of the microscope. His microscopes were fashioned by his own hand, and were composed of single lenses. The highest magnifying power was 160 diameters, and the lowest 40. The blood corpuscles had been discerned by Malpighi, a cotemporary, but Leeuwenhoek was the first to describe them.

The medical historian will notice that a long period elapsed, from the labors of Malpighi and Leeuwenhoek, until the subject of histology received an additional impulse. Bichat, who was only about thirty years old when he died (1802), may be said to have created General Anatomy. Before his time no successful effort had been made towards a correct analysis of the body into certain distinct "textures," or "tissues," which are recognized by the unaided senses and distributed through the different parts and organs.

Trevarinus (1816) published an account of the tissues, dividing them into the *amorphous*, *fibrous*, and *globular*. Hew-singer (1822) attempted to show how fibres and tubes are formed from globules, by linear arrangement. Brown (1833) discovered the nucleus of the vegetable cell. Valentin and Swahn pointed out the fact that cells lie at the basis of all organized forms. Schultz (1836) elaborated the histology of blood-cells. Henle (1837) demonstrated that animal tissues may be nourished without blood-vessels. Schleiden (1838) advocated the uniformity of vegetable structures from cells. Schwan, about the same time, advocated the uniformity of origin of animal tissues from cells. Henle (1843) called attention to the fact that there are some tissues which have not a necessary pre-existence in cells. Aschersair (1840) discovered that cells are primarily formed from a union of oil and albumen—around a particle of oil a membrane of albumen is formed, and thus we have a cell. Paget (1846) observed fibres to make their appearance in tumors before the presence of nucleated cells.

Thus we have sketched, in a very general way, the origin and progress of this very interesting subject.

As the inquiry has progressed, it has been found to be properly divisible into several *Parts*. The following arrangement has been announced by the author:

I. "To give a connected view of the simple chemical elements, of the immediate chemical principles, the simple structural elements, and the proper tissues entering into the composition of the solids and fluids of the human body.

II. "To associate with the structural elements and tissues, their function while in health and the changes they undergo in disease."

Part I. embraces *STOECHIOLOGY*, (from *stoicheion*, "element," and *logos*, "a discourse.") Under this head we have: 1st. The simple chemical elements entering into the human body. 2d. The immediate principles of which the tissues of the human body are composed.

Stoichiology embraces *fifteen* chemical elements entering into the structure of the human body—oxygen, hydrogen, carbon, nitrogen, sulphur, phosphorus, calcium, magnesium, sodium, potassium, chlorine, fluorine, silicum, iron, magnesium. It has been announced that copper and lead normally exist in the blood-corpuscles of man; and no less an authority than Orfila added arsenic as entering into the tissues. These observations have not, however, been confirmed.

These elements unite variously to form the tissues. The first four are the most general, being found in all the tissues and most of the fluids, except fat. Sulphur and phosphorus enter largely into the composition of the brain, hair, nails. About 1-170 of the weight of the brain is phosphorus. Lime and magnesia make up a large part by weight of the bones. The phosphate of lime constitutes about one-half the weight of human bone, and the carbonate of lime about one-tenth. Chlorine combines with hydrogen to form hydrochloric acid, which abounds so largely in the gastric juice, the principal solvent of the food. Iron makes about 1-2000 part by weight of the blood; it exists, also, in hair, muscle, milk, pigment cells, and gastric fluid.

Such being true, it is axiomatic that food and drink, in order to nourish the body, must contain these fifteen normal elements. No single article except milk and eggs contain them all; hence, as the author remarks, the necessity of variety in diet. It may also be noticed that ten of the fifteen articles enumerated are minerals; hence the nonsense of the prejudice against minerals as medicines. What more reasonable than to suppose that many of the derangements of the organism, to which we apply the term "disease," are due to some change or alteration in the *quantity* or *quality* of these normal elements? A physiological condition of the body certainly expresses the fact that these normal elements are present, and in proper proportion. Why may not something of a reverse character be expressed by pathology? What, indeed, is more likely to contribute to a correct understanding of the departures from the standard of health, than an intimate acquaintance with all that is known of the forms and relations of structural elements, and of their chemical composition in each part and organ?

The SECOND DIVISION embraces the "*immediate*" principles of which the tissues of the human body are composed.

"The *immediate* principles of the tissues are the last bodies constituting the organism to which the tissues can be reduced by *anatomical* analysis, and which admit of no further subdivision without chemical decomposition. Sugar, gum, starch, cellulose, water, etc., are immediate principles to a plant, and water, albumen, fat, urea, etc., to an animal. The oxygen, hydrogen, carbon, etc., composing the part, are the simple elements, or the elementary (or mediate) principles of the plant or animal respectively."

The number of immediate principles in the human body is not precisely determined. A classification embracing 84 is adopted. Oxygen, hydrogen, nitrogen and carbon, may be *immediate* as well as *mediate* principles, and are included in the above enumeration.

Oxygen exists in a free state in venous and arterial blood, in the air-cells and bronchial tubes. The whole amount in the free state in the body, averages 77 1-4 grains. The quantity

of oxygen consumed by an adult in a year, is about 800 pounds. The prevailing opinion among physiologists is, that it combines, after being taken in by respiration, with the tissues and the respiratory elements of the food, (starch, sugar, fats, etc.,) thus forming carbonic acid and water for the purpose of producing animal heat. The author thinks this view too narrow. Heat he regards as a result of the nutritive changes of all kinds, and not the object of them.

Hydrogen is found in the free state in the stomach colon and cœcum. In the gases expired in normal respiration, there is a very small part. None at all has yet been found in the blood.

Carbonic acid exists in the lungs, the alimentary canal, the blood, and the urine. The amount, it is said, if in the gaseous state, would occupy from one-fifth to one-third of the space actually filled by the whole mass of the blood.

Nitrogen in the free state is found in the air-cells of the lungs, in the blood, and in the intestinal gases. The whole amount in the lungs and blood varies from 46 to 47 grains.

Water (Protoxide of Hydrogen) enters into the composition of every fluid and every tissue, uniting in true binary combinations. It is therefore one of the most important of the *immediate* principles, and exists in far greater amount than all the rest together.

A table is given, showing the proportional amount of water in each fluid and tissue. With the exception of enamel, dried cuticle, teeth, bones, tendons, there is no tissue which is not more than one-half water. The human brain is 789-1000 water; muscle 77-100. The water in the tissues, where the proportion is less than one-half, is said to be in the *solid* state, and entirely different from the condition in which it is found in the mineral kingdom. Hence muscles have more consistence than blood. In the fluids the water is in the *fluid* state, and holds solids in solution. In a single instance only, the halitas from the lungs, the water is in a gaseous state. The average amount of water consumed by an adult male in a year, is about 1,500 pounds. M. Barrel found that more water leaves the body than enters it, and maintains, as a con-

sequence, that the excess is formed in the body by the direct combination of its elements.

Water makes its exit from the body by the kidneys and the skin, in the feces, and from the pulmonary mucous membrane. About 1,900 pounds annually escape through these out-lets, the urine containing 900 pounds.

A mummy of a native of Teneriffe, presented to Blumenbach by Sir Joseph Banks, weighed but seven pounds and a half, probably not more than one-sixteenth the weight of the body during life.

Saline Principles.—We pass over the chapter on salts. "The salts contained in each tissue, are represented by the ashes resulting from its combustion, pretty nearly, but not precisely, since the carbonic acid of the carbonates is set free by too elevated a temperature, and then merely the base remains in the ashes. Salts enter into the composition of every organized tissue, though sometimes in the slightest degree."

Chloride of Sodium (Common Salt).—This substance is very generally distributed. It is found in every fluid and every solid in the body, except in enamel. It exists in the liquid state in every part except the bones, teeth, and cartilages. There is three or four times as much common salt in the blood as in the muscles, and still more in the urine than in the blood.

Immediate Principles of organic origin formed within the body by DIS-ASSIMILATION.

This group of principles, sometimes called "secondary compounds," have a definite chemical composition, and are formed in vegetable as well as animal bodies. They number forty-two in all, and all agree in the circumstance that they are rejected from the body, almost as soon as formed, in the bile and urine. The class includes "urinary deposits," except the organized, as mucus, pus, and blood.

The remarks of the author are exceedingly interesting, though not much extended, on this class of articles. Among them, fat is included; and when the result of dis-assimilation, its presence becomes of interest to the pathologist. When it accumulates in the epithelial cells of the kidney or the liver, it

produces death in the same way as fatty degeneration in other parts. What is true of fat when it accumulates abnormally, is also true of all the other articles belonging to this class. As soon almost as formed, they require to be expelled. Take urea as an example. The kidneys are continually engaged in the elimination of this substance. When, however, from any cause these organs cease their normal action, urea at once demonstrates its presence in the body as a very virulent poison. We lately saw an instance of this. The patient, an adult male of 48 years of age, was taken with hematuria. After this continued several days, the solid constituents of the urine seemed to diminish, though the quantity of water underwent little, if any change. This condition was followed by the symptoms of poisoning from urea in the blood. At a later stage, convulsions supervened, and the patient died.

We see but little on the subject of urinary deposits not hitherto published and with which those read upon the subject are not likely familiar. An exception to these remarks, however, exists with reference to what has been figured and described as *urate of ammonia*, the lateritious sediment, or the amorphous yellow and impalpable sediment of Prout, existing normally in the urine and very abundant in the febrile states. Dr. Golding Bird calls the substance—and so do almost all other writers—*urate of ammonia*. The author says it is not urate of ammonia, but *urate of soda*, and quotes Lehmann, as saying that the urate of ammonia very seldom occurs as a urinary deposit.

Oxalate of Lime.—Bird, in the first edition of his work, called the attention of the profession to the presence of this salt in the chrystalized form, as it occasionally makes its appearance in the urine. The import of its presence in the urine he regarded as very grave. He, indeed, supposed it always connected with an intractable cachexy. Later researches by the same author and others do not seem to warrant such conclusions. The author before us says: "This salt (oxalate of lime) is frequently present in normal urine in small amount; much increased, it indicates a pathological con-

dition. * * * The oxalate of lime increases in the urine after the use of vegetable food, and of beer, which contains much carbonic acid gas, and the alkaline bicarbonates, and vegetable acid salts. It often appears in the urine of pregnant women, and very constantly on the mucous membrane of the pregnant uterus. Lehman finds that it increases if the aerating process is any way disturbed. * * * It is always, in the urine, accompanied by lactic acid." The mulberry calculus, consists mostly, as is well known, of the oxalate of lime, and the latter indeed enters into the composition, more or less, of all the varieties of calculi. "It often forms alternate layers with uric acid, a fact disproving the notion of the *uric acid diathesis*."

Sugars.—Two kinds of sugar are found in animals; sugar of the liver and sugar of milk. In vegetables there are several kinds, and grape sugar seems to have the same composition as hepatic sugar. Hence grape sugar, hepatic, and diabetic sugar, are all synonymous terms.

PART II. of the work takes up the *simple* Histological elements. 1. Homogeneous substances. 2. Simple membrane. 3. Simple fibre. 4. Cells. 5. The tissues proper.

These constitute the simple histological elements; they are formed from the blood, and from the first four of them, all the tissues proper are directly or indirectly derived. We have no room for the author's remarks on these elements. We may, however, say, in passing over them, that he shows himself acquainted with the most recent researches.

The diagrams in this department are well executed—a very uncommon thing in works of the kind.

The Blood; its Histological Relations, etc.—The chapter on the blood is elaborate, and the matter which makes it up very well arranged.

Lymph and chyle, in a physiological view, says the author, are to be regarded as blood in its primary stages of development. The opinion is expressed very positively, that the lymph and chyle, although at first derived from the blood, re-enter again the circulation and become blood. As lymph traverses the lymphatic glands, and is elaborated by them, it

approximates more and more nearly to the blood itself, till it at last is mingled with the latter from the thoracic and great right lymphatic ducts.

With respect to the origin of *blood-cells*, colorless and colored, we see nothing new. Lehmann is quoted as favoring the idea that they are formed in the liver. Kolliker thinks that the colorless corpuscles originate in the minutest lacteals. He there found nuclei either free or surrounded by granules and very fragile young cells, with walls almost touching the nucleus, and states that they increase in size on their way to the thoracic duct. Scherer and Kolliker have designated the spleen as the organ where blood-cells are disintegrated and dissolved.

These of course are all mere theories. It must be confessed, however, that the fact that the blood of the hepatic vein contains more blood-cells than does that of the vena porta, is, to say the least of it, somewhat indicative of the agency of the liver, as a creator of blood-cells.

Without any kind of doubt, the ductless glands, the spleen, thyroid gland, thymus, pineal, and pituitary, exercise agencies on the blood. The amount of blood with which they are respectively supplied leaves no doubt of their being engaged in important functions; and what more likely than that they are concerned in imparting to the blood some of its peculiarities and properties?

Quantity of Blood.—The quantity of blood in the human body has afforded a theme for some very widely different statements. When I first looked through physiological works, it was pretty uniformly set down at 28 pounds. Blumenbach, however, estimated it at 8 1-2 to 10 pounds. Reil went to the other extreme, and estimated it at 44 pounds. Experiments have recently been instituted by Weber, according to which only one-eighth of the body is blood, or eighteen pounds for a man weighing 144. Lehmann calculates the whole amount of blood in a young man to be 17 1-2 to 19 pounds.

The blood varies in different physiological conditions. The blood of women is of a lighter red color than that of men, is

lighter, and contains more water. In pregnancy the blood is dark, has more water in it, and is poorer in corpuscles and albumen. The blood of new-born infants abounds in solid constituents, especially blood-corpuscles and iron, while it is poorer in fibrine and in salts. In advanced life the blood is poorer in corpuscles, the serum loses some of its constituents, but the cholesterine increases.

Normal differences of the blood in different vessels.—The red corpuscles in arterial blood are not so numerous as in venous blood, and contain more water and less solid constituents. (Kolliker.) The white corpuscles are also less numerous in arterial blood. Arterial blood is richer in fibrine; its serum contains more water, and its extractive matter, salts, and oxygen, is increased.

The blood of certain veins is peculiar. The blood of the *portal* vein is rich in intercellular fluid, while it is poor in corpuscles. Fibrine and fat are slightly increased. The blood of the *hepatic* vein differs from that of any other vessel. Compared with the portal vein it is poor in water, but richer in corpuscles and extractive matter, including sugar. The blood of the splenic vein contains more water, iron, fat, and fibrine, while the corpuscles are diminished. The *menstrual fluid* is regarded merely as a hemorrhage periodically recurring from the interior of the uterus, and therefore *pure* blood. The author does not suppose that there is normally in this fluid a deficiency of fibrine, a supposed circumstance by which the non-coagulability of the fluid has been accounted for. In cases of menorrhagia there is no deficiency of fibrine or coagula.

Until the microscope was applied to this fluid, various theories obtained in regard to its composition. By some it was supposed to be a *secretion*; by others, a kind of exudation from the interior of the uterus. The state of the female generative system appears, during the flow of this fluid, to be analogous to the *heat* of lower animals, many of which, at that period, have a discharge of a sero-sanguinolent fluid. The sexual feeling of the female becomes stronger at the epoch of menstruation, and it is generally believed that there is a greater

aptitude for conception immediately before and after menstruation than at any other period. Such opinions, at any rate, were entertained by Hyppocrates, Boerhaave, Haller; and, by the recent experiments of Raciborski, they have been strengthened.

We confess our indisposition to believe the menstrual fluid identical with blood. All the circumstances to which we have alluded, and more that might be named, seem to signify very positively that it is a fluid *sui generis*, differing from all others; and we have no doubt about such being the ultimate verdict of the profession. It is true that there are no glands yet detected by which it is secreted, and it is equally difficult to explain its appearance as an exudation.

With the consideration of normal elements, tissues, etc., the author, to some extent, has noticed the changes produced by disease. Among other matters he gives the *Pathological states of the blood in certain diseases*. As a specimen, we give the following:

Inflammation changes the intercellular fluid of the blood, by producing, or rather, perhaps, being attended with an *increase of fibrine* (hyperinosis). The highest increase occurs in rheumatism and pneumonitis. Albumen is somewhat diminished in inflammatory blood; so are the red corpuscles in very violent inflammation. *Fever* is attended with an increase of water, the phosphorized fats, and cholesterine. The blood corpuscles are diminished in number, but the fibrine, extractive matters, and soluble salts, occur in the normal amount. In *marsh fever* the fibrine albumen, and fats, are diminished. In *Cholera* the blood is dense and viscid, but the fibrine is unchanged.

Cancer.—We have some wood-cuts on cancer-cells, from which we extract the following:

“Cancerous masses consist of the four following elements, in addition to blood vessels:

“1. A matrix of homogenous substance, either hyaline or granular.

“2. Fibres more or less approaching those of white fibrous tissue in appearance.

"3. A great variety of cells and nuclei, some of which are generally regarded as peculiar to cancer.

"4. A cream-like fluid, termed the 'cancer juice.'"

These elements are said to vary very much in the different forms of cancer, three of which may be designated: 1. *Schirrus*; 2. *Encephaloid*, or cellular cancer; 3. *Colloid*, in which there is a predominance of a peculiar gelatinous fluid.

Melanotic cancer is distinguished merely from having pigment cells added to the cancer elements.

Second Division.—Fluids of the human body. *Hygrology.* These embrace four chapters: 1. The blood, including lymph and chyle. 2. Serous secretions and transudations and exudations. 3. Mucous and glandular secretions. 4. The cutaneous secretions.

We have no space to take up each of these departments, and must refer the reader to the work itself.

We, however, cannot avoid a notice of what the author has to say in regard to the secretion of the liver, the use of which, is, as we regard it, but very imperfectly understood, notwithstanding the readiness with which we are in the habit of invoking derangements of the organ to account for pathological states. An adult man, weighing 140 pounds, was estimated, by Schmidt, to secrete 23 ounces of bile in twenty-four hours. The secretion is effected by several circumstances. *Fat* increases it when taken in the food in abundance. Calomel increases it also, but only so far as the water is concerned, the solid constituents remaining the same. In febrile diseases it is diminished. Carbonate of soda diminishes it. All the constituents of which bile is composed, are formed within the liver, not one having a pre-existence in the blood. On the use of the bile, the author holds: "It neutralizes the acids of the gastric fluid in the duodenum; it prevents the putrefactive decomposition of the contents of the intestine, holding them, as it were, in *statu quo*, till the pancreatic fluid exerts its peculiar action on them; it aids in securing regularity of defecation, from its stimulating effects upon the muscular coat of the alimentary canal."

We look upon such views as purely speculative. There is

not a particle of proof in favor of either of them. How ridiculous to suppose that the bile is a natural cathartic.

With respect to the *pancreatic* fluid, it is stated that it changes starch into glucose, the albuminous elements of food into albuminose, and the *fatty* into an emulsion, (Bernard). "It cannot, however, be the main agent in changing the fatty elements below the jejunum," since it is changed or absorbed before reaching the middle of the small intestine.

Perspiration (Sweat).—Nearly all of this fluid seems to be water. Favre computed that 99 1-2 per cent. of the sweat is water. The amount of perspiration in the 24 hours, averages, in case of an adult man, about 25 ounces, (Valentin). The solid constituents consist of chloride of sodium, which is most abundant, salts of ammonia, earthy phosphates, peroxide of iron, acetic, formic and lactic acids, and urea, which is also a normal constituent.

Sweat is supposed to regulate the temperature of the body. The main object, however, appears to be the elimination of deleterious substances from the blood. The quantity of these solid constituents removed in the twenty-four hours, varies but little from 38 grains, (Krause).

All physicians are aware of the deleterious consequences resulting from a "check" of the perspiration. How is this to be explained, since, as we have seen, 99 1-2 per cent. of the fluid is water? The author says: "It is probably because the action of the skin, as an exhaling and transudating surface, is suddenly checked, and not that of the perspiratory glands alone, that such serious consequences ensue from such sudden changes. And it is not singular that the pulmonary surface, or that of the alimentary canal, or of the uriniferous tubes, should manifest a higher amount of power as a transuding surface when this physical process is suddenly checked on the skin, and that catarrhs, diarrhoeas, or diureses, should result therefrom."

We here suspend our notice of this book. The *Third Division* commences on the TISSUES. We shall, perhaps in the future, resume our notice at this point. (This work treats of

the foundation of things, and deserves a careful perusal by all those who wish to be respectably informed in their profession.

A Theoretical and Practical Treatise on Midwifery, including the Diseases of Pregnancy and Parturition, and Attentions required by the Child, from Birth to the period of Weaning. By P. CAZEAUX. Member of the Imperial Academy of Medicine, Adjunct Professor in the Faculty of Medicine of Paris, etc., etc. Adopted by the Superior Council of Public Instruction, and placed, by Ministerial decision, in the rank of the Classical Works designed for the use of Midwife Students in the Maternity Hospital of Paris. Second American, from the Fifth French Edition. By WM. R. BULLOCK, M. D. With one hundred and forty Illustrations. Philadelphia: Lindsay & Blakiston. pp. 992. 1857.

When a book reaches its fifth edition it is pretty good evidence of merit. By that time the profession are likely to have made a test, practically, of its teachings. The second edition of the work before us was translated by R. P. Thomas, of Philadelphia, 1850. The present translation of the fifth edition has been made by Wm. R. Bullock.

The author of this work states that it has been mostly his object to get up a good manual for students; though he thinks the general practitioner may find it to his advantage to consult it. His position in the lying-in hospitals has enabled him to put to the test practically those doctrines which for a considerable time have had currency in the literature of midwifery. He states that, while he has adopted as true all those that have been confirmed by his own experience, he has unhesitatingly rejected those that were not, come from what quarter they might.

We notice, in looking over the names of those of whose labors the author has availed himself, that he has not been inattentive, as Frenchmen are too prone to be, of what has been contributed to midwifery in other countries. From English as well as American authors he has adopted what truth and the progress of science required. "Lastly, it will be seen how

highly I value the eminently practical writings of Madame Lachapell. In a word, I have selected from all sources, whatever bears the impress of truth."

Among the parts which have given to this work its popularity, may be reckoned some very clear thinking on a number of subjects. The author's chapter on the *Mechanism of Labor*, is perhaps the best yet published. The process of Parturition in that chapter, is well disposed of, and perhaps constitutes the most valuable part of the work.

The *Appendix* is devoted to a consideration of the use of Anesthetics in labor. In regard to chloroform, the author remarks:

"The annihilation of pain in all cases, the prevention of the nervous shock which is sometimes the consequence of too painful or too prolonged a labor, and the facilitation of obstetrical manœuvres, are therefore the only indisputable advantages to be derived from the use of chloroform. Are not these advantages counterbalanced by serious inconveniences? Such is the opinion of some accoucheurs, though they, in my opinion, have been exaggerated both in their frequency and gravity."

We close our notice of this book by assuring the reader that it is one of the most valuable now before the profession. From the caption it will be seen that it embraces almost every thing pertaining and collateral to the subject of midwifery. The sale of the work at home has been very rapid. Indeed it seems to be honored at home no less than abroad.

Plates Illustrative of Wilson on Diseases of the Skin. Fourth Edition. Philadelphia: Blanchard & Lea, 1857.

Some time since we received, from the house of Blanchard & Lea, the fourth edition of *Wilson on Diseases of the Skin*; pp. 649: 1857.

We stated that as a manual it was, perhaps, one of the very best now before the profession, and ought to be in the hands of every physician.

We now have to notice the plates which illustrate the book.

"In the present edition of these plates, the publishers have added those prepared by Mr. Wilson to illustrate his work on constitutional syphilis and syphilitic eruptions."

We have looked through the series of plates, nineteen in number. They are colored and uncolored.

We know of no class of diseases more difficult of diagnosis than those that affect the skin. Take, for example, syphilis. In this disease, when constitutional, we have every variety almost of skin disease, symptomatic of course. To distinguish these from each other is difficult enough, but to distinguish them from the primary types is often impossible. The plates before us will do very much to assist the practitioner in diagnosis. We do not mean to say that by these he can be an adept in recognizing eruptions. No one can expect this in private practice. Proficiency, indeed, can only be attained by those constantly engaged in infirmaries for skin diseases.

Silver Sutures in Surgery.

We are in the receipt of a copy of an anniversary address before the New York Academy of Medicine, in November last, on the above subject, delivered by J. Marion Sims, M. D., to whom the profession is indebted for all that is known on the subject. There is much in the address that is well worthy of the consideration of surgeons, and we propose to transmit the most important part of it to our columns.

Our readers are probably aware that in January, 1852, Dr. Sims, then a resident of Montgomery, Alabama, published an article in the *American Journal of the Medical Sciences*, descriptive of a new method of treating vesico-vaginal fistula. It consisted in the use of silver wire as a suture. The margins of the fistula were first carefully pared, then common needles, loaded with silver wire, were introduced about 3-16 of an inch apart, making the points of entry and exit at a free distance from the margin of the fistula, and carrying the needle to a good depth, but being careful to leave the mucous mem-

brane of the bladder unharmed. The free ends of these wires were passed through leaden bars, one laid firmly on the mucous membrane of the vagina on each side of the fistula, and generally parallel with its longer diameter. These bars were forced firmly down into the vaginal tissue by traction upon the wires, and held in their places by split shot pinched firmly upon the wires after the manner of the sinkers on a fisherman's line. This ingenious arrangement he styled the "Clamp Suture." By its use the doctor attained an unprecedented success in the treatment of this formidable difficulty.

It is not any part of our purpose to describe circumstantially the doctor's treatment of these cases. The details in the American Journal, already referred to, but more especially in the address before us, are abundantly full and well illustrated by suitable cuts. To these we must refer those who are disposed to examine the subject critically. At the present time the doctor dispenses with the leaden bars and also the split shot, regarding the silver wire as the essential part—the *sine qua non* of success. His present mode of using it is thus described by himself:

"The wire must be made of virgin silver, annealed, and small enough for a suture. In some cases the needle may be armed with it, and so used; but in the majority of operations about the vagina, I prefer to pass silk ligatures first, and with these to draw the wires after. The sutures should be passed in, near the edge of the fistula, taking care to embrace the whole denuded surface, but not to penetrate the mucous lining of the bladder. They should, as a general rule, be about 3-16 of an inch apart, and each tied separately, by twisting the two ends of the wire together, then cutting them off, and leaving the twisted ends at least half an inch long, to facilitate their removal."

He uses two sizes of wire, No. 28 and 29, the latter being the finer and preferable. They are prepared by Mr. Berinbroick, No. 83 Duane-street.

It is more particularly to the use which it is proposed to make of it in general surgery that we wish to call attention.

It would be an act of cruelty, and a sin against the cause of

humanity, wantonly to check or cool the ardor and enthusiasm characteristic of the labors of Dr. Sims. They are worthy of all commendation, and should be encouraged in every legitimate way. His devotion to a specific object, and his concentration upon what has hitherto been regarded as a minor matter, are equally worthy of imitation. He has demonstrated most strikingly what good natural powers, thoroughly concentrated upon a given object, and fired by a suitable enthusiasm, may accomplish for science and humanity. His name is destined to an association with vesico vaginal fistula, as lasting as the anathema pronounced upon woman: "In sorrow shalt thou bring forth children."

We are hopeful, too, that the silver suture is destined to great usefulness in general surgery. But here we have our fears that the Doctor has arrived at conclusions, not fully justified by his experience. Illustrative of the facilities afforded by the circumstances in which he is placed, as a great discoverer, for self-deception, we give, in his own words, the following case:

"In May, 1850, a gentleman had the misfortune to lose a good part of the left ala nasi. In the operation eight interrupted silver sutures were used—they were removed on the 7th day; union was perfect, and he soon went home with some slight tumefaction of the parts, which gradually subsided.

"In the course of a fortnight he returned, saying that in wiping the perspiration from his face, he discovered some pricking substance at the seat of the operation, which he supposed to be a bit of wire. He was right; the wire was there, but easier felt than seen. It was removed, and found to be half an inch long; it had remained there four weeks, producing no sense of soreness, and no inflammation or suppuration as a silk ligature would have done, thus establishing the great and important principle that silver was as innocuous as lead, and, like it, might become sacculated, producing no irritant or poisonous effect whatever."

It is evident, from reading this case, and from various allusions in the address, that the susceptibility of silver to innoc-

uous sacculation is regarded as a matter of importance; and it would perhaps not be unjust to say, that the Doctor regards this as "the great and important principle" upon which the practice is based. So far as his conclusions are derived from the operation of "this principle," we cannot receive them. Fish bones, common pins, pieces of bone, and even the repudiated silk ligature may become thus encysted. Within a few hours we removed a piece of bone as large as a half ounce ball from the side of a young man's face, where it had been for two years, as thoroughly encysted and as perfectly harmless as ever we found a leaden bullet to be. During the day too we examined the cicatrix resulting from an amputation at the shoulder joint, performed about eight months since. In ligating the vessels, we evidently included fibrous or nervous tissue. The ligature consisted of common saddler's silk doubled. The noose never came away. It is now sacculated, not among original, but rather, in adventitious tissue, that of the cicatrix. And here, even in these very unfavorable circumstances, it has not shown the slightest sign of its presence for months.

Now if the Doctor's case of "innocuous sacculation" in original structures, for the period of four weeks, proves silver to be a good suture, we cannot see why our case of "innocuous sacculation," for a much greater period, and under less favorable circumstances, does not prove our saddler's silk to be a better one.

But we do not propose to let theoretical considerations offset the results of experience and observation. In original investigations, it is of especial importance that theory be kept in the back ground. Let every thing be brought to the *experimentum crucis*. Whatever fails, this test may be safely laid aside, however spacious in appearance.

The following cases, as showing the superiority of this suture, are valuable:

"In 1852 a little boy some 8 years old received a blow on the upper lip, near the left commissure, cutting it through for 3-4 of an inch. Three interrupted silver sutures were applied, and no other dressing. I saw no more of him till the ninth

day: union was perfect, the wires remaining precisely as I had placed them. Their removal was like that of a delicate earring from the ear long used to wearing it.

"In 1853 a gentleman called on me with a very bad canceroid warty excrescence, involving a large part of the lower lip, which had resisted all remedial efforts. Its removal was advised. He said he could not possibly spare the time necessary for a cure; I told him that twenty minutes would suffice for the operation and dressing, and that he could then go home (some 80 or 100 miles), and return in a week. He consented. The usual operation by a V incision was performed, and the cut surfaces united by four interrupted silver sutures, sustained by a single strip of isinglass plaster, with no other dressing. At the appointed time he returned with the parts perfectly united throughout, the wires producing no inflammatory effect whatever.

"In *Hare-lip* the results of this suture are beautiful. They should not be further apart than $\frac{3}{16}$ of an inch, or even less: thus affording good support and perfect co-adaptation. It is necessary for them to remain till union is firm enough to prevent any widening of the cicatrice by muscular traction, which requires usually from five to eight days. As it is important to prevent any mark from their unequal pressure, a thin plate of some transparent material may be placed, like a delicate splint, on the co-adapted edges, over which the wires may be tied, thus protecting the tender cuticle of the child's lip from their cutting pressure; while at the same time it allows an inspection of the united parts, which, if necessary, can be more accurately fitted by gently insinuating a small probe under the translucent medium: a thin bit of glass, in the absence of anything else, answers the purpose admirably well.

"However, nature has given us a better material for this purpose, one to be found everywhere and at any time. A clarified goose-quill split into sections, softened in boiling water, and then flattened out by heavy pressure, fulfills every indication in this 'hare-lip suture.' So far as absolute success in the operation is concerned, nothing can be added to the

silver wire to make it more certain, and these translucent media are recommended merely for the purpose of preventing scars that may result from the pressure of the wire.

"In *Wounds of the Scalp*, I have often applied silver sutures, and here they possess a peculiar fitness. They do away with the necessity for sticking plasters, and there is no need of a razor. Besides, of all regions of the human body this is most liable to traumatic erysipelas, hence the importance of dispensing with silk as a suture.

"Dr. Emmet, the accomplished Assistant Surgeon to the Woman's Hospital, removed in December, 1856, an encysted tumor from the scalp of a lady aged 62. It had existed some forty years, giving her no inconvenience until a few months before, when it increased rapidly in size and became tender on pressure. Six silver sutures and a water dressing were applied. On the eighth day they were examined for the first time. Found union by the first intention—the wires had produced no irritation whatever, and from appearances they might have remained there without it for an indefinite period, although she was below the average state of health.

"Having applied this simple suture with the same unvarying success in all the minor operations, which it is here needless to detail, would it not have been strange had I failed to try it in the bloody or heroic ones? Indulge me a moment to enumerate a few of them.

"In 1849, 1852, and 1853, I removed the *Mamma*, applying this suture, the number in each case varying from eight to seventeen. The wires were allowed to remain from seven to fifteen days. It is almost needless to say that in every case the result was the same as in the smaller operations,—complete cohesive union.

"In 1852 (February), I removed the principal part of the *lower jaw* bone for osteo-sarcoma, in a negro woman some 50 years old. It was divided at the angles, thus necessitating an incision of about ten inches after Mott's plan. The wound was united by eighteen silver sutures, and a simple sustaining bandage applied. The whole length of it healed by the first intention, except an isolated point at the middle of the chin,

through which the retaining ligature of the *frænum linguæ* had been passed for security. The wires were not removed for ten days. Had silk been used as a suture there would have been an absolute necessity for their removal in three days at the farthest, and even then it is almost certain that the bed of each suture would have been a suppurating sore.

“In 1849, 1850, and 1852, I used silver sutures in *Amputations* of the thigh and leg, and in every case produced union by the first intention throughout the whole extent of the wounds, with the exception of the point left for the passage of the ligatures.

“In all amputations, surgeons knowing the bad effects of ordinary silken sutures, have been in the habit of applying as few as possible, and trusting to adhesive plasters and bandages to retain the edges of the flaps in contact. The poisonous properties of silk render its early removal imperative; hence the wound must be disturbed before adhesion is firm, and thus mischief results from the surgeon's necessary interference. But when the silver wires are applied, there is no necessity whatever, under ordinary circumstances, for any interference till the parts are firmly united.

“They must be placed near enough together to bring closely and accurately into contact every portion of the edges of the flaps, which may now be sustained by a few long narrow strips of Liston's Isinglass plaster. It takes a little longer, and it is therefore a little more trouble, to apply nicely twelve or fifteen silver wire sutures, than to stick in clumsily four or five great silk ligatures; but when the stump is dressed there is no more trouble with it, and the wires may not be removed for eight or ten days, or even longer. Moreover, there is not so much excuse for compresses, bandages, Maltese crosses, and all the bungling contrivances often resorted to after amputations, while there is every facility for applying a light water dressing, which is the only thing usually needed in such cases.

“In 1855, at the request of Dr. Willard Parker, the distinguished Professor of Surgery in the College of Physicians and Surgeons, I applied silver sutures to a large *abdominal section* in the case of a young lady, the subject of Ovariectomy.

They were passed deeply through the parietes of the abdomen, but not perforating the peritoneal coat. Union by the first intention was complete—the sutures remaining a week.”

The doctor's estimate of his achievement may be inferred from the following :

“But enough has been said to fix attention upon the importance of this suture, and *its universal applicability in general surgery*.

“It is to revolutionize surgical dressings, and to ensure more beautiful and prompt cures. With it, properly applied, there can be no gaping wounds to heal by the suppurating process, where there is skin enough to cover a stump ; and in many cases erysipelatous inflammation, and even hospital gangrene, may be averted by substituting it for silk as a suture.

“After all amputations we must use sutures of some sort ; and how often do we see silk ulcerating out, and creating such tendency to suppuration, that we are compelled to remove them before there is sufficient union to resist the retraction of the tumefied flaps. But with silver there is no inflammation, no suppuration, no cutting out of sutures, no gaping or retraction of flaps, and therefore no necessity for disturbing the dressing till all is firmly united and permanently well.

“This is no vain imagining : though enthusiastic, I am not wildly so, for all this has been familiar to me for the last eight years, and I but speak what I know. The next eight years will not find an educated physician anywhere who will dare to use silk sutures, for the silver thread will now become as essential to the dressing case as the needle itself ; and if I may be allowed to venture a prediction, I will say that fifty years hence the statistics of our hospitals will show a vast improvement in their bills of mortality after great operations, and this improvement will be due mainly to the use of silver as a suture.

“Look at its results in injuries of the vagina. Before this discovery, operations for vesico-vaginal fistula, and its congenic affections, were often attended with risk to life, while a cure was a mere accident. But how is it now ? Why, every

case is easily and perfectly curable that has tissue enough to render any operation whatever practicable; while a failure is the exception to the rule. Besides, there is not the least risk to life, as there is never any fever, or the slightest constitutional disturbance.

"I am not claiming too much for this suture when I say, that the same relative results must be attained in all other surgical operations requiring sutures, if the same method be adopted.

"My language is in nowise extravagant; and I shall yet live to see the day, when the whole profession of the civilized world will accord to this simple discovery the high position of being the most important contribution as yet made to the surgery of the present century.

"The only thing at all comparable to it is Etherization; and in practical results of permanent benefit it is absolutely contemptible, when compared with those from the universal use of silver sutures in the broad domain of general surgery."

The following personal narrative speaks for itself. We commend it to the attention of young men who would make their mark:

"Having now briefly shown that I have used silver sutures with uniform success in almost every imaginable injury requiring sutures, these practical remarks might very properly be here closed; but, as concentrated efforts have been made in various quarters to rob me of full credit for my labors, I have thought it due to truth, to justice, to posterity, and to myself, to place permanently upon record a history of the circumstances attending this discovery.

"Some of my contemporaries will not approve the measure, but when this generation passes there will be no difference of opinion amongst critics on this point; besides, it will not be unprofitable should it stimulate but one young aspirant for fame and fortune to redoubled efforts, under unpromising circumstances and opposing obstacles, to the accomplishment of still more glorious triumphs for our noble profession.

"Although fully fortified by the necessity of self-vindication, still I hesitate and tremble; but why should I be afraid

to write, and speak, and publish to the world, what I am not ashamed to acknowledge to any individual, viz.—that it was all the result of a Providential train of circumstances over which I had no control, and that it pleased God to lead me in this direction in spite of my predilections.

“As the field of my labors thus partakes somewhat of a missionary character, a labor of love under Divine guidance for the furtherance of a truly benevolent purpose, you will pardon a personal narrative, which under other circumstances would be inexcusable.

“For the first ten years of my professional life the treatment of any disease peculiar to woman was ignored as far as possible. Surgery was my ambition, and it was gratified, for my head, and heart, and hands were full. This was due, not to any particular merit on my part, but, to a fortunate position amongst a liberal and enlightened profession in the noble State of Alabama, a profession, which, for intelligence and a chivalric *esprit de corps*, is not behind that of any other State in this great confederacy.

“Thus situated, a case of vesico-vaginal fistula was sent to me in July, 1845, which was investigated more because I had a surgical reputation to sustain than from any particular interest in the subject. It was, of course, dismissed as incurable. Two months after this another presented, which received a like verdict. Two cases in such quick succession in a country town, at that time, formed an era in one's life; imagine my surprise, when, a few weeks after this, a gentleman called to consult me about a third case. I told him promptly that it was useless to send her to me, as the injury was wholly incurable. He suggested that there was a possibility of my being mistaken in my ready diagnosis; when I replied, that a leakage of urine following a protracted labor was an infallible sign of a vesical fistula. But my remonstrances were unavailing, for he sent her to town in spite of me.

“I investigated the case thoroughly, reading every author I could find on the subject, but to no purpose, for all was darkness and confusion; and thus I was on the eve of sending her home, when a little incident occurred that formed the

turning point of my professional career, and without which the discovery that has engaged our attention to-night would not have been made.

"A lady was riding in the suburbs of the city of Montgomery, Alabama, and her pony taking fright, jumped suddenly, when she fell suddenly to the ground, striking on the sacrum. I saw her soon afterwards; her sufferings were extreme, as she had rectal and vesical tenesmus from a sudden retroversion of the uterus. To replace the dislocated organ was the indication of relief. Following the teachings of learned professors, the patient (covered with a sheet) was placed on the knees with the pelvis elevated, and the thorax depressed, when by manipulation through the vagina and rectum, I hoped to replace it. Introducing the right forefinger into the vagina, but remembering how a nervous gentleman had suffered a few days before from a rectal examination, I concluded not to subject this lady to the same disagreeable operation, particularly as it seemed possible to overcome the difficulty if my finger was only a little longer. My middle finger is more than half an inch longer than the index, but it could not be used without its fellow; and thus the two were passed, and in a few seconds I could not touch the uterus, or even the walls of the vagina, and the fingers were swept around as it were 'in empty nothingness,' which was to me at the moment a most puzzling mystery, and while I was endeavoring to unravel it, my patient exclaims, 'Oh doctor, I am relieved!' My office was ended, for my mission was to relieve her, but how it was done I could not understand. While I stood doubting and wondering, my patient, now easy, threw herself down on her side, producing thereby a sudden escapement of air from the vagina; and thus the whole mystery of the accidental reduction of the dislocated uterus was explained on the principle of atmospheric pressure.

"And what was its rationale? When the patient was in the position described, there being a natural tendency of the pelvic viscera to gravitate towards the epigastric region, it would require no great *vis a tergo* to produce the desired result in a recent case of this kind. One finger, however, was not long

enough to throw the organ up, nor were the two; but when they were both introduced, in my varying manipulations and strenuous efforts, the hand was accidentally turned with its palm downwards, which thus brought the broad dorsal surface of the two parallel fingers in contact with the vulvar commissure, thereby elevating the perineum and expanding the sphincter muscle, which allowed the air to rush into the vagina under the palmar surface of the fingers, where, by its mechanical pressure of fifteen pounds to the square inch, this canal was dilated like a balloon, and the uterus replaced by its pressure alone. This accident—THERE ARE NO ACCIDENTS IN THE PROVIDENCE OF GOD!—this incident, then, occurred just at the right time. Had it happened six months sooner, its importance would not have been duly appreciated. Had it been six days later, the golden opportunity for its practical application would have been lost forever; for my mind had been sorely perplexed by the obscurity surrounding the investigation of the cases before alluded to, and I said to myself, ‘If by this position the atmospheric air can be made to dilate the vagina to such an extent, even with a force strong enough to reduce a dislocated uterus, why will not the same principle allow me to explore this region, and examine accurately any injury, or disease to which it may be liable?’ Full of the thought I hurried home—and the patient (with vesico-vaginal fistula), who was to have left on the next day, was placed in the position described, with an assistant on each side to elevate and retract the nates. I cannot, nor is it needful to describe my emotions, when the air rushed in and dilated the vagina to its greatest capacity, whereby its whole surface was seen at one view, for the first time by any mortal man. With this sudden flash of light, with the fistulous opening seen in its proper relations, seemingly without any appreciable process of ratiocination, all the principles of the operation were presented to my mind as clearly as at this time. And thus in a moment, in the twinkling of an eye, new hopes and new aspirations filled my soul, for a flood of dazzling light had suddenly burst upon my enraptured vision, and I saw in the distance the great and glorious triumph that awaited determined and persevering effort.

From this moment my high resolve was taken; nor did I think, or care for the personal sacrifices I should have to make. I thought only of relieving the loveliest of all God's creation of one of the most loathsome maladies that can possibly befall poor human nature; and in this, I honestly confess that I was stimulated by feelings of national pride, as well as by a desire to advance our glorious profession. Full of sympathy and enthusiasm, thus all at once I found myself running headlong after the very class of sufferers that I had all my professional life most studiously avoided. Ransacking the country around, my medical brethren soon discovered and placed at my disposal, some seven or eight cases of vesicovaginal fistula that had been quietly laid up as incurable. Building a little hospital as a special field of experiment, I readily got control of these cases, all of them healthy young negro women; promising to perform no operation that would endanger life, or render their condition any worse. Having no proper instruments, and no instrument maker, dentists, jewellers, and blacksmiths were laid under contribution, and soon such rude instruments were made as were suggested by the peculiar wants of individual cases. This occupied a period from the 9th of December, 1845, to the 10th of January, 1846, when the first operation was performed.

"Several medical friends, amongst whom were Drs. Boling, Holt, Ames, Baldwin, Jones, McWhorter, and Henry, were invited to the inauguration of the experimental series. When the mechanical contrivances were exhibited, the peculiarities of each case pointed out, and the principles of the operation explained, they thought my plan of procedure promised well, while some were but little less enthusiastic than myself in hopes for the future.

"The first was a very simple case, and one that any tyro in surgery could now cure in a week's time. The fistula was an inch and a quarter long, transverse, in the base of the bladder, with an abundance of tissue. Its edges were accurately adjusted, and I expected at once to effect a magical cure; but greatly to my surprise and mortification it was a failure. However, the size of the opening was reduced to one not larger than a No.

4 bougie: this encouraged me considerably, and the same operation was tried on another case with a like unfortunate result, and after this, with various, and constantly varied modifications on others, till each one had suffered numerous operations, but all to no purpose. And thus I worked on, not for weeks and months, but for long weary years, before a single case was cured. My repeated failures brought a degree of anguish that I cannot now depict, even were it desirable. All my spare time was given to the development of a single idea, the seemingly visionary one of curing this sad affliction, which not unfrequently follows the fulfilment of the law pronounced by an offended God when he said to the woman, 'In sorrow and suffering shalt thou bring forth children.'

"Soon my friends began to despair of my efforts, and one by one became tired of such profitless work. At last, Dr. B. R. Jones, my partner, an accomplished physician, who had stood firmly by, giving his valuable advice and assistance, importuned me to cease my efforts; thus opposed at home, and deserted by the professional brethren who once cheered me on by their personal presence, I now stood alone—alone! did I say? no, I was not alone, for I felt that I had a mission, if not of a Divine character, at least but a little short of it, of Divine origin. I felt that the God who had called me to this good work, and inspired me with new views for its accomplishment, was with me, and would not desert me. I could not have ceased my labors if I had tried, for something told me that the fulness of time had arrived, that the work had to be done, and that if I should fall, God in his wisdom would raise up some one as an instrument to carry it forward to a glorious consummation. I was not alone then; nor was I alone in another sense, for I had succeeded in infusing my own courage and enthusiasm into the hearts of half a dozen sufferers who looked to me for help, and implored me to repeat operations so tedious, and at that time often so painful, that none but a woman could have borne them.

"To the indomitable courage of these long-suffering women, more than to any one other single circumstance, is the world indebted for the results of these persevering efforts. Had

they faltered, then would woman have continued to suffer from the dreadful injuries produced by protracted parturition, and then should the broad domain of surgery not have known one of the most useful improvements that shall forever hereafter grace its annals.

“In my first experiments the quilled suture was used, securing the ligatures by passing them through little canulæ that projected from the vulva.

“The canulæ were firmly soldered to the proximal quill, and when the ligatures were tightened and wrapped round the end that projected from the vagina, the fistulous edges were neatly co-apted by the quills. This is introduced merely to show the slow degrees by which practical truths are sometimes developed. After using this machine variously modified for nearly three years, giving attention mostly to the perfection of the self-retaining catheter, I at last concluded that the projecting canulæ were a chief cause of failure, and consequently determined to dispense with them: but how to secure the ligatures was the question. A detail of the numberless expedients resorted to is useless; suffice it to say, that I was at last driven completely to the wall. I had resolved never to repeat another operation till I had devised some plan of fastening the quill suture without the canulæ—of tying a knot where I could not reach it with the fingers. Thus my brain was sorely puzzled; I had not performed an operation for nearly six weeks, and my devoted patients were begging me from day to day, to ‘try only one more time.’ Notwithstanding their importunities, I had determined first to invent a knot for my sutures; but it seemed that my usual readiness of expedient had now deserted me. My brain was oppressed; my heart was heavy; but never for one moment did I despair of eventual success. At last I happened to remember that, when a boy, I used to make sinkers to my fishing lines by cutting a shot half in two, laying the line in the cut, and then compressing the shot on it with my teeth. I cannot express the delight that filled my heart at this simple suggestion. The idea occurred to me on the night of the 14th November, 1848. The contemplation of its beauty, simplicity, and per-

fect adaptation to the purpose, gave me a sleepless night; for there I lay with etherealized brain, performing in imagination a magical cure on each of my devoted patients. This was, as I thought, the consummation of all my plans. After a struggle for three years, victory was about to crown my efforts. How I longed for the morning, that I might put to the test of experiment what seemed so beautiful in theory. But I was doomed to wait another twenty-four hours before proving my principle; for just as I was preparing for the operation, a call to the country appropriated the day, and thus the longest day of my life was lengthened out by hope deferred. But bright and early on the succeeding morning, I applied the quill suture secured by the perforated shot. It was all I could desire—I was never so well satisfied with any operation in all my life. How anxiously I waited for its results. I had at last gotten rid of the canulæ that had so long been such a serious obstacle to success, and everything was propitious; but these bright hopes were of short duration, for I soon had unmistakable evidence that the operation was a total failure. What was the cause of it? why, said I, it must be because the silver quills are too large; so I began to lessen their size till they were not more than a line in diameter, and on account of the expense of silver, lead was substituted: but notwithstanding these modifications, there was no more success than at the beginning. What now was to be done? The principles of the operation were clear, and its mechanism seemed to be perfect. At first I had supposed my failures were due to the imperfection of the catheter: that was perfected, and then I laid the blame on the method of securing the sutures by means of the canulæ; they were replaced by the perforated shot, and then I looked to the size of the quills, and reduced them, so that they burrowed nicely in the tissues: it then seemed that success was inevitable, but still disappointment awaited me at every turn.

“Thus far all my experiments were conducted on the principles of a rational inductive philosophy. The operation was mechanically perfect, but with no better result than when it was rude and clumsy. There must be a reason for all this—

what was it? Why, said I, perhaps it is in the nature of the material more than in its principle of action. What a happy thought! Of course it was, for a silk thread introduced under the skin, and allowed to remain a week, becomes a seton, giving rise to the suppurative process, and certainly the same thing must occur with it in the vagina; and how then could there be cohesive union? Here then was the difficulty at last; how strange it now seemed to me that this fact had not long ago forced itself upon my mind. Now the question arose, was there a substitute for silk that would answer the same purpose, and yet not poison the animal tissue? Why, lead remains indefinitely in the body, becomes sacculated, and produces no poisonous or suppurative effect. Dr. Levert,* of Mobile, had demonstrated the innocuousness and efficiency of leaden ligatures on the arteries in the lower animals, and Mettauer and Dieffenbach had actually used leaden sutures in these very cases; and I had in my various experiments tried them in two cases of vesical, and one of rectal fistula, but fortunately for science, the clumsy leaden wire was unsuccessful in my hands. Was there any other metal that could be substituted for lead, possessing its valuable property of harmlessness?

"In this train of inquiry what would be more readily suggested to the reasoning mind than silver, gold, and platinum?† Just at this stage of affairs I happened to pick up a piece of brass wire, that had been used in a pair of old-fashioned suspenders made before the days of India rubber; it was as fine as ordinary sewing thread. I took it to a jeweler, who imitated it in silver. I was now quite as anxious to see the result of an experiment with this, as I was seven months before to see the perforated shot applied. On the 21st June, 1849, it was done. A young colored woman, who had never murmured at the preceding failures, was placed on the operating table for the thirtieth time, and the silver sutures were applied, with the leaden bars and the perforated shot. In all

* *American Journal of Medical Sciences*, No. VII., May, 1829.

† All these I have used, but adopt the silver, because it is as good as gold, and cheaper.

previous operations the urethra, in a day or two, would become red and tender, and the urine loaded with thick tenacious mucus, thus showing the inflammatory process, which was adverse to union; but after this operation, the urine remained perfectly limpid all the time, and on the eighth day the parts were perfectly healed; the suture apparatus remaining just as it was placed, with the crossbars somewhat burrowed in the vaginal tissue.

"I shall not dwell upon my feelings at this time. At last I had attained what I had worked for nearly four years; and it was but a few weeks before all the cases were cured that had been the subject of experiment for so long a time. I was anxious to get a few more cases to settle some doubtful points, before publishing to the world my discovery; but unfortunately with the realization of my dreams, and in the full fruition of my most sanguine hopes, came a sad reverse. An exacting practice and the extreme mental tension of the past four years had produced a collapse, long foreseen by friends, without my consciousness of its approach. Having contracted the chronic disease of a warm climate, which is almost universally fatal, and struggled hard for more than two years, and as it seemed, hopelessly against my fate, thus seeing that death was inevitable, and fearing that I might die without the world's reaping the benefit of my labors, I determined to give my experience, crude as it was, to the profession that I loved so much. And accordingly, in October, 1851, my paper "On Vesico-Vaginal Fistula" was dictated, and sent to Dr. Isaac Hays, of Philadelphia, who published it in the *Am. Jour. of Med. Sciences* for January, 1852, as my last free-will offering on the altar of science. I little thought of living to see it in print, but it has pleased an All-wise God to restore me again to health, and by a mysterious Providence to place me in your midst, where I have found nought but friends and kindness."

PART FOURTH.

EDITORIAL AND MISCELLANEOUS.

Suit for Alleged Mal-Practice.

The profession of our city was lately called upon to witness the prosecution, for alleged mal-practice, in the Franklin county court, of one of its members, Dr. N. Gay, formerly Demonstrator of Anatomy, in Starling Medical College. As the matter has received some notoriety, we propose very briefly, as we happened to be present during the most of the trial, to give, in a very brief manner, a few of the facts elicited.

The accident occurred to a Mr. Martin, a man of ordinary constitution. He was thrown from a buggy while the horse was running off, and suffered a compound comminuted fracture of the *Tibia* and *Fibula*. The fracture was on the lower third of these bones. The tibia was protruded, by the violence, through the flesh, stocking, and boot. Dr. Gay saw the patient soon after the accident, adjusted the bones, and applied the "fracture box." The box used, united in its construction several more elements than are usually found in instruments of the kind. Besides being arranged so as to be capable of being converted into a double inclined plane, it also possessed the parts necessary to extension and counter-extension. It combined, in short, the simple fracture box with a double inclined plane, and Hutchinson's splint for extension.

The patient, as appeared from the evidence, was seen regularly until the sixteenth day, when the physician was discharged, and another one called in. At the first visit the bones were adjusted and the fracture box applied. Pretty extensive sloughing occurred, of the soft parts, and also exfoliation of the bones. These circumstances made it necessary to abandon the attempt to keep the leg bandaged. It was, as a

consequence, dressed as an open wound for some fifteen days after the accident.

The result of the case after Dr. Gay's treatment, and that of the physician (Dr. Robert Thompson) who succeeded him, was that the leg was bent a little, and shortened about one inch and a quarter; the ankle joint ankylosed, and there was an indolent ulcer at the point of fracture. These results were charged as being due to the treatment the case received at the hands of Dr. Gay.

Quite a number of witnesses were examined, both for the plaintiff and the defendant.

The points attempted to be made against the defendant were—

1. That the instrument used to maintain the leg in position, was not of the most approved kind.

2. That the leg should have been kept bandaged from the commencement, and extension and counter-extension should have been continually maintained.

Other points were raised, but not insisted upon to any great extent.

A word or two with reference to the *fracture box*. In fractures of the tibia and fibula, when compound and comminuted, as was the case with the one under consideration, there is no instrument better calculated to fulfill all the indications than a "*fracture box*." It is as well adapted to keeping the leg in position as splints can be, besides its construction admits of letting down its sides so that every part of the limb may be inspected without the removal of the instrument. Often, too, it is improper, from the extensive sloughing, to apply bandages or permanent dressing of any kind. In such cases, the leg can be laid in the fracture box filled with bran or chaff, which may be placed around it, thus serving to keep it in position without subjecting it to scarcely any restraint. We unhesitatingly, therefore, give it as our opinion that there is no apparatus known to surgery better adapted to compound fracture of the tibia and fibula, than the fracture box.

In the treatment of fractures, there is a very prevalent no-

tion that the surgeon, as soon as he sees the patient, should not only adjust the bones, but he should at once put on permanent dressing, including the means necessary to extension and counter-extension. In short, that the bone, or bones, should be set, and permanent dressings at once applied. In simple fractures, this may be done, and inasmuch as there is a general prejudice in its favor, it is right to do it. Very many cases however occur where it would not be by any means the best practice. There are two prime objects a surgeon wishes to accomplish in the treatment of a case of fracture. One is to avoid deformity in the limb, the other is to make the patient, during his illness, as comfortable as possible.

In the attempt to avoid deformity, the surgeon of course must have an eye as well to the general system of his patient as to the local trouble. Keeping a patient, who is laboring under a high grade of traumatic fever and irritation, under the restraint of an apparatus for extension and counter-extension, immediately after the accident, and keeping him in this condition, must always diminish, to a greater or less extent, the recuperative powers of the system. The patient should be kept as comfortable as possible, free from all restraint, until just before the period when the material is thrown out by which the bones are cemented together.

Let us look at this matter a little. The most ancient opinions in regard to the mode of union between broken bones, was that it was owing to an osseous juice poured out between the fragments. (Haller.) John Hunter believed that the union of bones fractured took place from the organization of the blood effused around the fracture and between the fragments. Duhamel supposed that reunion of bones took place from the swelling, elongation, and subsequent adhesion between the periosteum and medullary membrane of one fragment, and the corresponding parts of the other. From these membranes thus modified bony matter was deposited in the form of a ring on the exterior of the bone, and a plug in the medullary cavity, extending across the point of fracture. Dupuytran and Sanson instituted some experiments which are very satisfactory. These experiments teach that "the union

of fragments of bone is effected by the formation of two successive stages of callus. One, which is *provisional* or *temporary*, is completed usually in the space of forty days, by the union and ossification of the periosteum, cellular tissue, and even in some cases of the muscles, so as to constitute an external ring; and of the medullary membrane so as to constitute an internal plug. The other, which is called *permanent* callus, or final callus, is formed by the reunion of the surfaces of the fracture with a solidity so much superior to that of the bone in other parts that it will break any where again rather than at that point, and which is never fully completed until at the end of eight, ten, or twelve months, by which time the provisional callus has been removed and the medullary canal is completely re-established."

Dupuytran therefore divides the successive organic changes which take place, into five periods. The first period extends from the fracture until the time at which the provisional callus commences being deposited. This period of course varies according to the age of the patient, character of the accident, etc. In children, it is from eight to ten days; in adults, it is from ten to twelve days; and in those advanced in years, longer. When the fracture is compound or comminuted, there is no callus thrown out until after the sloughing has subsided. Prof. Hamilton has collected twenty-five cases of compound fracture of the tibia and fibula. These cases give an average of forty days for the throwing out of the provisional callus. This *first* period, as a consequence, may be denominated the period of cleaning up. The membranes, muscles, vessels and nerves have been torn and the bones fractured. The process of absorbing the fragments takes place; the blood effused is also removed; then a slight inflammation is developed in all the parts, which is the first step towards the production of callus. We therefore hold that it is simply unnecessary, during this first period, to do anything more than to keep the patient comfortable. In these compound fractures, where the inflammation and sloughing is considerable, the patient is restless, and after the fragments have been carefully adjusted, there will be a constant tendency to displacement. Should

the surgeon, under such circumstances, attempt the re-adjustment of the bones every day? We repeat it as our opinion that such interference is unnecessary. The adjustment is in time at any period before the exudation of the provisional callus, and we have seen that the average time of this is forty days in compound fractures of the tibia and fibula. Besides, where extension and counter-extension is attempted to be maintained from the commencement, excoriations will be produced, and often to an extent that will render it impracticable to institute what is really necessary in this way at the proper time.

There is another matter connected with fractures, to which we will briefly refer, for the reason that it is not very well appreciated in practice. We allude to the fact that *provisional* callus, for the first four weeks of its existence, remains to a certain extent soft and pliable—sufficiently pliable, indeed, to admit of mal-adjustment. Indeed, there is great reason to believe that much of the deformity following fractures occurs after the production of provisional callus. Patients are always in a hurry to get on foot, and often use the fractured limb before it has been at all solidified. In adults of feeble constitution, or persons advanced in years, it is frequently six months, and sometimes a year, before it would be proper to attempt to sustain the weight of the body on a fractured leg.

The damages in this case were laid at \$5,000. The jury rendered a verdict for the defendant.

CORRESPONDENCE.—Our present No. contains a letter from Dr. Wm. Trevitt, M. D., U. S. Consul at Valparaiso. We have another one on file.

DEATH FROM CHLOROFORM.—An inquest was lately held at the Bristol Infirmary (says the local Gazette), before the coroner, Mr. J. B. Grindon, on the body of William Powell. It appeared from the evidence that the deceased was about forty-nine years of age, and a cooper by trade. On the 9th inst. he

was admitted into the Infirmary, suffering at the time from a disease of the elbow-joint, occasioned by a fall received some two years before. The bones of the joint were so diseased that it was deemed necessary an operation should be performed on him. It was intended that the operation should be performed by Mr. Prichard. The medical gentlemen were assembled, and the deceased having expressed a wish to inhale chloroform, he was examined to see if he was in a fit state to take it. No objection to his taking it could be elicited, and a small quantity was therefore administered in the usual manner by Mr. Powell, assistant house-surgeon. In less than three minutes the man was dead. Mr. Powell and Mr. Crisp both deposed that the chloroform was administered in the regular manner, and that the quantity taken was very small. On examination it was found that the heart of the deceased was naturally very weak. The coroner explained to the jury that though chloroform was administered in tens of thousands of cases with the greatest benefit and success, yet every now and then a case would occur in which, from some peculiarity of constitution, the patient's system was unable to recover from the effects of the inhalation, and death took place. The jury returned a verdict, "that the deceased died from the effects of chloroform, administered to prevent the pain of an intended operation."—*Lancet*, Feb. 27, 1858.

A most unfortunate circumstance connected with the use of Chloroform, is, that we have no means of determining, even approximatively, in a given case, the amount required to produce the desired effect. Occasionally, giving it freely, it makes but little impression for a length of time: then again a very trifling quantity produces a profound, alarming, or even fatal effect.

A few years since Prof. Howard and Dr. A. A. Shortt administered it to a pauper in the Franklin county Infirmary. While the patient was taking it, a female passing through the room, at the distance of a number of feet, inhaling the vapor, dropped instantly in a state of profound stupor, from which she was aroused with difficulty.

We were called August 3, 1856, to see Mrs. P., aged 34, a lady of stout build and vigorous constitution. She was having terrific convulsions, growing out of Amenorrhea. It was proposed at once to resort to the use of Chloroform. We were informed, however, that her husband—who was absent—was violently opposed to its use on account of alarming effects growing out of her taking it in connection with a previous attack of the same kind. Under the circumstances, we thought it prudent to exhaust the list of ordinary remedies before resorting to it. These were tried energetically for twelve hours. Failing even to mitigate, the patient became clamorous for Chloroform. As a trial, three drops were put to the mouth in the usual manner. Three inspirations produced perfect anesthesia, which lasted twenty minutes. The same quantity, given in like manner, continued, with the greatest uniformity, to produce the same effect, for the next twelve hours, by which time the tendency to recurrence of the paroxysms having ceased, there was no necessity for its further continuance. We have no hesitancy in saying that these three drop doses produced the most perfect, uniform and pleasant effect we ever witnessed from the use of the article.

February 4, 1858, Mrs. P. had another attack of equal severity. After four hours' unsuccessful trial of other remedies, consisting of a warm hip bath, the liberal use of exhausted tumblers to the sacrum and loins, and the abstraction of thirty ounces of blood, in connection with the free exhibition of Sul. Morphia, we again had recourse to Chloroform. For two successive administrations the former dose was given, with just about the same result. At this juncture it occurred to us to try smaller doses. Two drops were administered, which produced equally prompt and perfect relief, but the effect passed off within a less period of time. We then arranged to give *one* drop. Up to this time, we had never given it to her except while recumbent. As the effect of the previous dose passed off, the patient raised to the sitting posture. Just as she attained it, our minimum dose was at her mouth, when, making a deep inspiration, *she dropped instantly*, without a muscular movement, pulse, respiration, perceptible cardiac

impulse, or audible cardiac or respiratory sound! During the first thirty or forty seconds, we did little more than scrutinize the case, dash a glass of water upon the face and neck, and toss the patient upon the left side. This failed to elicit the slightest response. We then resorted, for an instant, to alternate pressure upon the abdomen and thorax. At this juncture it occurred to us that a male silver catheter, which we had just used, was in a bowl of water within reach. The tongue was instantly drawn well forward with the right hand, while the index finger was carried over the epi-glottis and glottis and used, first to direct the point of the catheter through the glottis and then to press upon and as far as possible close the glottis around the catheter, carried well down into the larynx and trachea. The lungs were alternately filled and emptied several times, when the patient made a gasp, followed by a labored inspiration, and the establishment, at once, of respiration and circulation.

One not having had occasion to make the above movements under the same or similar circumstances, could scarcely imagine the facilities afforded for the operation, in this case. The mouth was widely open—there was not the slightest sensibility about the glottis—there was not a muscular movement—and the degree to which the tongue, &c., admitted of being drawn forward was astonishing. The patient had no further difficulty.

The time during which life was apparently suspended—not having any but ordinary female assistance—it was impossible for us, with precision, to estimate; though, having watch in hand, we noticed, as definitely as we could, the period at which we dropped it to exert pressure. This was about thirty-seven seconds. We suppose the whole period, up to which the gasp occurred, was about *one minute, forty-seconds*. Were the above effects the result of the use of Chloroform? We would much prefer to answer negatively. With some qualification, however, we are compelled to answer affirmatively.

The patient, three hours before, had lost, from the arm, thirty ounces of blood. For the four previous hours she had taken sedative doses of Morphia. It should be remarked,

that during these hours, the patient, in her struggles, maintained the sitting posture a considerable portion of the time, and that at no time was there the slightest approach at syncope; nor was she subject to it. Perhaps, had it not been for the conjoined effect of morphia and venesection, impairing the force of the heart's action, the conjunction of posture and chloroform would not have been sufficient to arrest it.

In neither of these cases was the patient recumbent. What is the fact, in regard to position, in fatal cases? This occurs to us as worthy of inquiry. H.

EDITORIAL AND PROFESSORIAL CHANGES, &c.—The *Peninsular Journal of Medicine*, and the *Medical Independent*, have united their fortunes under the name of the *Peninsular and Independent Medical Journal*. It is edited by Professors Palmer and Gunn, of the Michigan University, and Frederick Stearns, Pharmaceutist.

Our sprightly friend, Hunt, retires from the editorial supervision of the *Buffalo Medical Journal*, and also from his Professorship of Anatomy, in the University of Buffalo. We deeply regret it. He is in the possession of talents which we had hoped to see devoted to his profession. His tastes, or something else, have led him to make a connection with the daily press of Buffalo. We infer that Austin Flint, Jr., the former associate editor, is to take full supervision.

OGLETHORPE MEDICAL AND SURGICAL JOURNAL.—This is the name of a new candidate for professional patronage and favor; published bi-monthly at Savannah, Ga. It is edited by H. L. Byrd, M. D., and Holmes Steele, M. D.; the former Professor of the Principles and Practice of Medicine, and the latter of Obstetrics, &c., in Oglethorpe Medical College. The number before us is admirable. As far as such a basis will allow, we predict for it a successful career. We enter it upon our exchange list, wishing it an abundant measure of prosperity.

J. DICKSON BRUNS, M. D., is now editor and publisher of the *Charleston Medical Journal*.

PROF. J. C. NOTT, the accomplished Professor of Anatomy

in the University of Louisiana, has resigned, and returned to the practice of his profession in Mobile. H.

A CONVENIENT METHOD OF PERFORMING VACCINATION.—Shave the scab down into very thin chips and drop them into a small, short vial; add clear water, and agitate. The quantity of water is indicated by a slight turbidity, after the matter has had time to soften. In using it, first dip the point of a tenotome into it very slightly. The first touch showing blood, effects a vaccination with the greatest certainty. The preparation may be carried in this way for several weeks without any impairment of its value, and is in a state of constant readiness for insertion. By this method ten vaccinations may be effected in a minute. H.

DEATH OF DR. JOHN K. MITCHELL.—The numerous friends of Dr. J. K. Mitchell will regret to hear of his death, which happened, a few days since, at his residence in Philadelphia.

On a Ready Method of Determining the Presence, Position, Depth, and Length of a Needle Broken into the Foot. By Mr. ALFRED SMEE. (Proceedings of the Royal Medical and Chirurgical Society, vol. i., number 3.)

In the "Medical Times" for the 14th of December, 1844, Mr. Alfred Smee has published a portion of a lecture on the means of determining the presence, general direction, and size of a needle in the body. Mr. Smee mentions the various means that may be employed for making the needle magnetic, and states that he has detected a piece of a needle weighing only one-seventh of a grain broken into the finger; but no minute details of this or of any other case are given, and on this account the following clear and minute description of the method for determining the presence, position, depth and length of a needle broken into the foot, may be interesting.

A lady, in walking about her bed-room, ran a needle into the great toe; on searching the floor, a part of a needle was found, and there was every reason to believe, from the sensation, that the pointed end was broken off and left in the toe.

Unsuccessful endeavors were made to extract it. About two months afterward, doubts were expressed whether any needle was in the foot; a scientific friend offered to settle that question, and, if it were there, to say in what part of the toe it then had its place, and what was its direction, its depth, and probable length.

In a letter to Dr. Bence Jones, who communicates the paper to the Royal Medical and Chirurgical Society, Mr. Smee says: "The following were the means employed. A fine sewing-needle was well magnetized, and a piece about an eighth of an inch long was broken off. Then a filament of cocoon silk, about an inch long, had one end attached to the middle of the little magnet by a touch of soft cement, and the other end to the handle of a camel's-hair brush. In this way a minute test magnetic needle was obtained, which pointed well under the earth's power, and could easily be brought near any part of the toe. The toe being examined by this needle, showed occasional deflexions of the latter, which being imperfect as indications, still seemed to imply that a piece of the broken needle was *there*, but rather deeply situated. Now the means of increasing these indications, and making them tell their story more perfectly, was applied, and upon the following principles. A piece of unmagnetized needle will affect a little magnet at a distance very feebly compared to the same piece magnetized. The unmagnetized piece will affect either end of the test-needle alike, whereas the magnetized piece will affect the opposite ends in different ways, attracting one and repelling the other. A piece of unmagnetized needle can be magnetized at a distance by a magnet of sufficient power, and as well whilst in the toe as out of it; also its magnetic state can be reversed, if the inducing magnet be reversed; and further, it can by management be unmagnetized, and when without magnetism it is not rendered magnetic whilst the lines of force of the inducing magnet are perpendicular to it. Upon these principles I started, employing (as inducing magnet) a single bar horse-shoe magnet, made by Logeman, with the poles so far apart that I could introduce my thumb between them. The magnet was brought up

to the toe, then taken away, and the part examined by the indicating needle. The indication was not stronger than before. Hence one of two conclusions was probable: either there was no piece of needle there, or its position was at right angles nearly to the line joining the poles of the inducing magnet where it had been applied. So the inducing magnet was employed again in a different position, and now the indicating needle told its story beautifully, showing that a little magnet had been formed within the toe, which by its power attracted one end of the needle and repelled the other. A few more trials with the inducing magnet showed in what position it was able to act most strongly on the hidden needle, and then the position of the magnetic axis of the former indicated the position of the latter. Reversing the position of the inducing magnet instantly changed the magnetism of the buried needle, and then that point of the skin which before attracted the marked end of the indicating needle repelled it strongly, and attracted the other end. It was beautiful to see when the indicating needle was carried round a given spot, on the surface of the toe, how one end always pointed towards that spot, and even moved, as if striving to dip down to it. Thus the direction of the piece of needle, and the locality of one end, were clearly shown. Then came the question, where may the other end of the piece be, and what is the probable length of the whole?

“By carrying the indicating needle about the toe, it was found that the opposite end of the imbedded needle, though it exhibited an influence over the indicator, did not come near the opposite surface of the toe, but was buried deep in the flesh. Hence the broken needle pierced deep, and almost perpendicularly into the flesh, but did not come near the other side. I guess it, therefore, to be about the third of an inch long. Presently we may tell if the needle travels, and which way it is going.

“Hence—1st. The *presence* of an imbedded needle may most surely be determined, by making it into a magnet by in-

duction, and then testing for it by a minute suspended magnet.

"2d. The *direction* of an imbedded needle may be determined by marking the direction in which the inducing magnet makes the strongest magnet. When the length of the imbedded needle lies in the line joining the poles of the inducing magnet, it becomes the strongest magnet.

"3d. The *depth* of the imbedded needle may be determined by the intensity of the action near the surface of the skin.

"4th. The *length* of the imbedded needle may be guessed when the direction is known, and the amount of magnetic action at the part of the surface opposite to the spot where the needle entered is observed.

"Lastly, the *motion* of the imbedded needle may be determined by carefully noting, from time to time, the changes that require to be made in the position of the inducing magnet in order to give to the hidden needle the strongest possible magnetism."

GLYCERINE IN CORNS.—These troublesome things Mr. Wakley is in the habit of treating, at the Royal Free Hospital, by the application of glycerine, which has the effect of softening them, when they are easily scooped out. We saw as many as seventeen corns entirely removed in twelve days in this manner.—*London Lancet*.

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R. N. BARR M. D.,
Demonstrator of Anatomy,
Starling Medical College, Columbus, Ohio.

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Having enjoyed many years' experience in compounding medicine, he will promptly and very carefully fill Physicians' prescriptions, and to this branch of business he will give special attention, as he regards it of the highest importance. None but the best medicines will be used for this purpose, and he will strictly observe chemical principles in their combination. As he purposes devoting his time entirely to the occupation of a druggist, he solicits the patronage of medical men and the public generally.

[Jan. 1853.]

THE OHIO
MEDICAL AND SURGICAL JOURNAL.

Vol. 10.

Columbus, July 1, 1858.

No. 6.

PART FIRST.

ORIGINAL COMMUNICATIONS.

American Medical Association—Eleventh Annual Meeting.

FIRST DAY.

The association met in the lecture-room of the Smithsonian Institution, and was called to order at a quarter-past eleven o'clock, a. m., by Dr. Condie, of Philadelphia, when the chair was taken by the President, Dr. Paul F. Eve, of Nashville, Tennessee. Vice Presidents Breckenridge of Kentucky, Reese of New York, and Campbell of Georgia, were also upon the platform; and at their table were the efficient Secretaries, Drs. Foster of Tennessee, and Semmes, of the city, to whom we are under obligations.

Rev. Byron Sunderland, D. D., at the invitation of the president, offered an eloquent and appropriate prayer, invoking the blessing of Almighty God upon the convention.

Dr. Harvey Lindsley, of this city, chairman of the committee of arrangements, then delivered an address of welcome.

The secretary then called the roll by States, as it had been made out up to the commencement of the meeting, and the following number of delegates responded: Maine 2, New Hampshire 8, Connecticut 18, Vermont 1, Massachusetts 40, Rhode Island 5, New York 73, New Jersey 25, Pennsylvania 66, Delaware 4, Maryland 24, District of Columbia 25, Virginia 8, North Carolina 8, South Carolina 10, Georgia 12,

Alabama 1, Kentucky 9, Tennessee 7, Indiana 6, Illinois 12, Michigan 3, Iowa 3, Missouri 4, Ohio 14, California 1, American Medical Society of Paris 1, U. S. Navy 2. [When the name of Dr. Harvey, who has come from California expressly to attend this convention, was called, there was loud applause.] Other members were announced at different times during the day, and when the association adjourned there were *four hundred and six* names registered. A large increase is expected to-day.

Dr. Lindsley, chairman of the committee of arrangements, reported that it had been decided to hold but one business session each day, from nine a. m. until three p. m. He also announced that the President of the United States would be happy to receive, with those members of the association who might call at the Executive Mansion at eight o'clock in the evening, such ladies as may accompany them. [Applause.]

On motion, the association confirmed the appointment of Dr. J. M. Snyder to fill a vacancy in the committee of arrangements.

On motion, it was decided that a nominating committee of one from each State represented should be raised, the delegation of each State selecting its representative therein. A brief discussion upon the propriety of permitting the army and navy delegations to appoint separate members of this committee was decided by the president in favor of their having the privilege, and the decision was sustained by the association.

There was then a recess of fifteen minutes, during which the different delegations assembled in various parts of the lecture-room to choose their representatives in the committee. After the meeting was again called to order, the secretary read the list as follows:

Committee of Nomination.—Job Holmes, Maine; George H. Hubbard, New Hampshire; P. Pineo, Vermont; Ebenezer Alden, Massachusetts; Ashbel Woodward, Connecticut; J. Mauran, Rhode Island; H. D. Berkley, New York; J. P. Colman, New Jersey; Isaac Hays, Pennsylvania; H. F. Askew, Delaware; S. P. Smith, Maryland; Noble Young, District of Columbia; A. S. Payne, Virginia; W. H. McKee,

North Carolina; Wm. T. Wragg, South Carolina; Joseph P. Logan, Georgia; J. T. Hargraves, Alabama; R. J. Breckenridge, Kentucky; J. Berrian Lindsley, Tennessee; Wm. M. McPheeters, Missouri; George Mendenhall, Ohio; Calvin West, Indiana; A. H. Luce, Illinois; Zina Pitcher, Michigan; Thomas O. Edwards, Iowa; O. Harvey, California; and George Clymer, United States Navy.

On motion, Drs. Bohrer, of D. C., Flint of New York, and Hargraves of Alabama, were appointed by the president a committee on special essays.

Dr. David M. Reese, of New York, presented and read a written apology for having recommended for a position in Blockley Hospital, Philadelphia, Dr. McClintock, who had been expelled from the association for a violation of the ethics and the etiquette of the profession, by publishing a work on "domestic medicine," &c.

On motion of Dr. Condie, of Philadelphia, the apology was accepted, and ordered to be entered upon the minutes.

Dr. Bryan, of Philadelphia, who had also recommended Dr. McClintock, made a verbal adoption of Dr. Reese's apology, the reception of which was warmly debated. Dr. C. C. Cox, of Maryland, opposed and Dr. Condie advocated the reception. Dr. A. B. Palmer, of Michigan, moved the previous question on a motion to refer the subject to a committee, which was lost. The apology of Dr. Bryan was then accepted. [It was rumored in the hall that Dr. McClintock will be reinstated during the session of the association.]

The President then delivered, in a clear voice, and with a pleasing oratorical effect, his

ANNUAL ADDRESS.

Gentlemen of the American Medical Association:

We meet under most auspicious circumstances, and have been welcomed to the most favorable position ever occupied by our profession on this continent. The very ground on which we stand may be considered sacred; has been set apart from a common to a special purpose, and is national. Invited as we have been to this magnificent temple, furnished and

dedicated by a generous foreigner to science; in the presence of that towering monument, designed to commemorate the worth of him ever enshrined first in the hearts of his countrymen; surrounded by the glorious recollections constantly associated with this government; and before the great men and assembled wisdom of the nation; it becomes us to discharge the important duties which have called us together with honor to ourselves and benefit to our profession. Inspired by its benevolent spirit, and invoking the aid of an ever present and omnipotent God to preside over our deliberations, we may here renew our professional obligations, learn to love each other better, and resolve henceforth to be more faithful to our high vocation, that its dignity may be maintained and its usefulness extended.

Knowing as I do full well the value of time in our short sessions, and how much is expected from this meeting, the half hour set apart for this customary address will be restricted to subjects appropriate to the occasion. From this standpoint in the history of our meetings, it is proper to recall what has already been achieved, that we may be better prepared profitably to engage in the labor now awaiting our deliberations. This summary of our transactions is the more necessary, since, by a disastrous fire in 1851, the first four volumes of our proceedings have been destroyed, and are, of course, inaccessible to all new members, the last report of the committee on publication having announced the fact that not one complete set of them was on sale.

The grand object of a convention of the physicians of the United States, held the previous year in the city of New York, was carried into effect in Philadelphia, May, 1847, by organizing this association; and just ten years ago the first general assembly met in Baltimore. Since then annual meetings have been convened in our large cities for the transaction of business, and the proceedings regularly published each year. Ten large octavo volumes now comprise the transactions of the American Medical Association, being the contributions of its two thousand members delegated to represent the medical institutions of thirty States and Territories.

As set forth in convention, the ultimate purposes of this body are to cultivate and advance medical knowledge; to elevate the standard of medical education; to promote the usefulness, honor, and interests of the medical profession; and collaterally to enlighten and direct public opinion in regard to the duties, responsibilities, and requirements of medical men; to excite and encourage emulation and concert of action in the profession, and to facilitate and foster friendly intercourse between those engaged in it.

In carrying forward these desirable changes, embracing as they do medical science, medical education, and medical ethics, no one believes that we have done everything demanded for the good of the profession, or that all our great designs could have been attained in the brief space of ten years. The work assumed by the association, it was well known, would take time, labor, and united efforts. It comprehended higher requisitions for admission into a learned profession; prescribed the course of instruction; demanded a separation in the teaching and licensing power; proposed a code to regulate the intercourse between physicians, their patients, and the public; and claimed that every one within its pale should assiduously cultivate the science of medicine and promote its interests. And however extensive or radical may have been these contemplated plans, still on the whole it can safely be assumed that the American Medical Association has been no failure.

It has advanced medical knowledge, and promoted the usefulness of the medical profession. There will be found in the ten volumes of its printed transactions the results of the meetings held in Baltimore, Boston, Cincinnati, Charleston, Richmond, New York, St. Louis, Philadelphia, Detroit, and Nashville, that no less than three hundred pages are devoted to medical education; over five hundred to hygiene, including the sanitary condition of many of our large cities; six hundred to botany and indigenous plants; one hundred and fifty to obstetrics; four hundred to medical literature; seven hundred and fifty to medical science proper; more than a thousand to surgery; and two thousand to practical medicine, including the epidemics and prevalent diseases of nearly every State in the Union.

Special reports have been made from committees appointed for the purpose, on the effects of anæsthetic agents, ether, and chloroform; on the influence of tea and coffee on the diet of children and the laboring classes; on the supposed influence of the cerebellum over the sexual propensities; the results of operations for the cure of cancer; the introduction of water and gas into cities; two reports on the blending and conversion of types of fever; the action of water on lead pipes and the diseases proceeding from it; reflexion of the uterus; a nomenclature of diseases adapted to the United States, having reference to a general registration of deaths; the sources of typhus fever and the means of their extinction; the permanent cure of reducible hernia; the topical use of water in surgery; the agency of refrigeration by radiation of heat as a cause of disease; the results of surgical operations in malignant diseases; the acute and chronic diseases of the neck of the uterus; the nature of typhoid fever; coxaegia or hip-joint disease; the treatment of morbid growths within the larynx; the sympathetic nerve in reflex phenomena; the medical and toxicological properties of the cytogamic plants of the United States; erysipelas; the influence of the hygrometrical state of the atmosphere on health; the diet of the sick; pathology, causes, symptoms, and treatment of scrofula; the preservation of milk; the effects of alcoholic liquors in health and diseases; hydrophobia; the changes in milk produced by menstruation and pregnancy; the sanitary police of cities; treatment of cholera infantum; use and effects of nitrate of silver applied to the throat; strychnine; infant mortality in large cities, the sources of its increase and means of its diminution; medico-legal duties of coroners; new principle of diagnosis in dislocation at the shoulder-joint; the flora, fauna, and medical topography of Washington Territory; the nervous system in febrile diseases, etc., etc.

Prizes have been awarded by the association to the authors of the following essays, viz: On the corpus luteum of menstruation and pregnancy, for 1851.

On the variation of pitch in percussion and respiratory sounds in physical diagnosis, for 1852.

On the cell, its physiology, athology, and philosophy.

And on the surgical treatment of certain fibrous tumors of uterus, heretofore considered beyond the resources of art, for 1853.

On a new method of treating ununited fractures and certain deformities of the osseous system, for 1854.

On the statistics of placenta prævia, for 1855.

On the physiology and chief pathological relations of the arterial circulation, for 1856.

On the excito-secretory system of nerves, its relations to physiology and pathology.

And on experimental researches in relation to the nutritive value and physiological effects of albumen, starch, and gum, when singly and exclusively used as food, for 1857.

Carefully prepared reports have been published by the association of the various epidemics and diseases which have prevailed during the past ten years throughout our widely extended country, and the mortuary statistics and public health of our large cities minutely ascertained. Charts, maps, diagrams, tables, and plates have been freely employed to illustrate these subjects, so important to the general welfare of the people. Every State and Territory, every large city and sick community, with scarcely an exception, has had its hygienic condition explored by this body; and dysentery and cholera, typhoid and yellow fevers have specially claimed the attention of our members. The communications on deformities after fractures, found in our eighth, ninth, and tenth volumes, constitute the basis of the best monograph ever issued from the press. This work, it may be predicted, will do more than all others to check the reckless and speculative spirit of suits for mal-practice against medical men; for in addition to teaching a useful lesson to the profession in the prognosis of fractures, its testimony is so conclusive in reference to the usual results of these accidents, that judicial decisions must hereafter be regulated by it.

Besides these contributions to medical knowledge, this association has taken action to prevent the importation into our country of "worthless, adulterated, and mis-named drugs,

medicines, and chemical preparations," for which a member of the United States Senate has publicly declared that if we had accomplished nothing else, this alone should have entitled us to the gratitude of the nation; it recommended to the different States the adoption of a regular system of births, marriages, and deaths; memorialized Congress to secure steerage passengers in our emigrant vessels medical attention, and due amount of space between decks; appointed a committee to ascertain the best means of preventing the introduction of disease by emigrants into our large cities; and considered many interesting individual cases.

This is a mere index to what the American Medical Association has done for medicine during the first ten years of its existence. A simple reference to the professional facts spread out upon its pages, is abundant and satisfactory proof how extensive, varied and valuable are its contributions to medical science, and its ten volumes an overwhelming and congratulatory answer to the taunting proclamation of the Edinburgh Review of 1820, "What does the world yet owe to American physicians and surgeons?" In September, 1854, the editors of the Association Medical Journal of Great Britain published our code, and declared that this body of physicians was the most enlightened representatives of the greatest medical constituency in the world, of which it would be presumptuous in them to speak in terms of praise. They said of the volumes of the *Transactions* already published, that the duties of the standing committees have been ably and thoroughly performed; that the progress of medical science as a whole, its prominent divisions into practical medicine, surgery, and obstetrics, carefully and accurately traced in a series of reports worthy of the highest praise, had been reported in a clear, concise and comprehensive manner, reflecting the highest credit upon the committees, and also upon the association in selecting them for their respective duties; and in regard to what has been done in the laborious investigation of the indigenous medical flora of the Union; examination into and reports upon the adulteration of drugs; sanitary condition of the various States, and difference between them in the public

health; the study of epidemics and of special scientific subjects; the committees, continue these European medical authors, have collected and published a vast amount of highly valuable information. They moreover assert their belief that our success, especially in ethical reform, depends solely in the moral power inseparable from a constitution based upon the principle of equal representation, which they affirm they not only greatly admire, but can scarcely refrain from envying.

Here, then, is a reply to the above invective pronounced against the medical profession of America, voluntarily called forth from the countrymen of its author, and before he had been in his grave ten years,* by the contributions of this body to medical science within seven years of its organization. Upon such disinterested evidence, such full, free, and candid confessions, and from such a source, may rest the claims of the American Medical Association for proof of the benefits it has conferred on medicine. A most active and powerful agent in disseminating useful medical knowledge on this continent, it is highly probable that no similar institution has ever been more successful in carrying out its chief object—the promotion of science—than the one now assembled in this hall.

It has done something, perhaps all it could under the circumstances, to elevate the standard of medical education. An influential motive calling forth this organization, was the proposed attempt to correct the defects in the plan of instruction and conferring the degree then generally adopted in our medical colleges; and one of the first resolutions passed, even when the profession had assembled in convention, was the creation of a committee to report at an early day on these exciting subjects. Improvement in the system of teaching medicine, and a change in the power granting the diploma, if not reformation in the schools, have ever since agitated the profession, and consumed a considerable portion of the time of our sessions. The only power to control the economy of the colleges which this body possesses, is exclusively moral, advisory, or recommendatory, and not legislative or legal; and

*Sidney Smith died in 1845.

while it may be true that no set of resolutions presented by the several committees have been fully carried into effect, still it cannot be denied that important changes calculated to advance medical education have nevertheless been made. At least seven professors now compose the faculty in all our schools, the one or two exceptions to this being in those in which the science is taught nine consecutive months. Not less than a period of four full months' instruction now constitutes a course of lectures, and even this is exceeded in most of the institutions. But one annual course is now delivered with scarce an exception, and an interval is thus allowed for reading or private instruction. The association has clearly defined what shall be taught. It has inquired into the practical operations of all the colleges in the land; scrutinized the general condition of medical teaching in every State; compared it with that of the most enlightened nations; called attention to preliminary education and declared what it ought to be; advised higher requisitions and a more rigid examination for obtaining the degree; and has, by its free discussions and oft reiterated expressions in regard to the business of teaching and regulating the schools, undoubtedly prevented greater abuses. It has never ceased to urge at every meeting the pressing necessity for a more thorough preparation and greater attainments in candidates for the honors of the profession.

This subject, gentlemen, is one upon which you will be called to take action. A committee chosen at Nashville is to report on medical education. It is composed of gentlemen from different sections, who, while familiar with the systems of teaching medicine in our country, are yet disconnected from all the colleges. It would seem to be a desirable object to settle at this meeting the future relation of the schools to this association. Our sessions then might become less educational in character, and hereafter more scientific. And at the present stage of our proceedings, after all that has been said and done on this subject, the time has surely arrived for a decision. I cannot believe the colleges have any interested motives before this body; they of all others should be the

last to oppose a more thorough cultivation of medicine, and ought by such a course to become unworthy of their trust, and unwelcome members of a great national congress of physicians, whose grand design is to promote medical science. We have now reached a period in our history when this voluntary association is to determine what medical organizations, be they State, county or city societies, hospitals, boards or schools, are entitled to be represented in its meetings. It alone can, of course, prescribe the requisitions for its own delegates. If created to improve and advance medical education, (and this is in accordance with its own expressed declarations,) then it is quite certain the schools must be controlled. It has but to speak on this point and it will be obeyed; for it is now too late for any physician to oppose, or any medical college to set at defiance the moral power of this body.

As to the first object of an ethical nature over which the association designed to exert its influence, that of enlightening and directing public opinion in respect to the duties, responsibilities, and requirements of medical men, we are free to confess little or nothing has been done. Nor is there much probability that any great change will soon, if ever, be effected. The work itself, in the very nature of things, is utopian. How is it possible to enlighten or direct the public mind on the economy of a science which it practically denies to exist? We ought to recollect that the time has not long passed since grave professors in our colleges signed certificates recommending nostrums; or what was done even last year in London, at Middlesex Hospital, by its regular surgical staff: these reminiscences, however unpleasant, may serve, somewhat to moderate our indignation against those who would insult the profession, or who entertain a very low estimate of the scientific acquirements of physicians, even at the present day. The profession must first fully comprehend its duties and responsibilities, and the proper and special qualifications for the practice of medicine, before any attempt can succeed to get the public to appreciate what these are, or acknowledge the ethical impropriety of employing secret remedies. If we make no distinction between the regular and irregular practitioner

between the physician and the proprietor of a nostrum, we are alone censurable that two such opposite characters are so generally confounded by the community. Until we are more honest, more united, truer to ourselves and our calling, and cultivate a proper *esprit du corps*, in vain is it to expect a change in public opinion regarding medical science. To prevent disease or relieve the sick is a most benevolent and honorable vocation, and when one conceals for selfish ends a valuable medicine, he ceases to be honest and is void of philanthropy; for, by attempting to place a moneyed valuation upon pain and life, he becomes a trader in human physical sufferings; he estimates in dollars and cents the groans and tears of his fellow-creatures. He may profess what he pleases, but his piety is not of the Bible, and has not a jot or tittle of Christianity about it, for that teaches us to love our neighbor as ourselves. Eschewing politics, and seeking no aid from State or church, we should become a law unto ourselves, or rather act above all law save the divine, since it is quite certain we alone must protect the honor of the medical profession. And thank God, standing this day, the proudest of my life, before this goodly assembly, and at the capital of our common country, I can announce that here, to the American Medical Association, it may with safety be forever confided. By its recent acts, proclaimed throughout the length and breadth of this wide domain, this body has denounced all fellowship with irregular practices, and erected a barrier impassable to honor and respectability.

Having learned wisdom from a more careful examination of the statistics and results of deformities after fractures, the question occurs if we have not ourselves unwittingly made patients expect too much from remedial agents. Disease in itself is a destructive process, which we can only prevent or relieve, and as, of course, we cannot create or restore, should we not, therefore, be more chary of the little word "cure?" The monument erected to Ambrose Pare, the father of surgery, bears the modest inscription, in reference to the wounds he treated "*Je les pansay et Dieu les guarit.*"* Empirics may

* Ancient French.

boast that they cure, and doctors of divinity may sustain them, but the physician knows it is God who healeth all our diseases.

On that branch of ethics which relates to ourselves—that of encouraging emulation and concert of action among physicians, and fostering friendly intercourse in the profession—the association has been eminently successful. It has far exceeded the most sanguine expectations in overcoming all opposition; in creating an admirable code, now adopted everywhere; in organizing State, county, and city societies; in bringing together physicians from the remotest parts of our immense territory; in awaking the whole profession to its true interests; and in blending us into a common harmonious fraternity. Without law or authority, but by moral suasion have we been united as one man, and possess this day the power to be felt over this entire continent. There never has been a more propitious period for medicine in America; never greater evidence of vitality and extended usefulness in our ancient and benevolent calling; never better feeling or more confidence of success than now by our united effort to do good in the great cause of suffering humanity.

We have seen, gentlemen, how much this association has achieved in its infancy to elevate honorable medicine. A wide field for scientific investigation is before us; much territory still remains to be redeemed; the wilderness is yet to blossom as the rose, and the leaves to be gathered for the healing of nations. The hygienic condition of the nation, of such immense interest to our people—that first, all-important question, ever before the profession—the prevention of disease—is to be improved. We are to search after truth, and when found it is to be generously applied for the good of mankind. The work is a self-sacrificing and benevolent one, but it is grand and sublime, even God-like; for it has to do with pain and disease, life and death; and we rejoice to know that whenever or wherever called upon, the members of our profession and of this association have never failed in any duty, and have been faithful to the end. Yea, many of them have stood alone between the living and the dead, and

cheerfully laid down their lives to stay the pestilence and destroyer.

The very waters at our feet, as they sweep onwards to the ocean, pass in sight of a city where three years ago no less than four-fifths of our profession in that community, swelled, too, as their ranks had been by volunteers from this body, fell manfully contending with disease and death; and on a late occasion, when one of our steam-packets, having been injured by a collision, went down in an instant, carrying every soul on board into the depths of the ocean, among the passengers was a member of this association. To the inquiry where was he during the heart-rending scenes of a sinking ship, freighted with human lives, promptly came the affecting and sublime eulogy from one who knew him well, that so long as a woman or child remained unprovided for he† never left the ill-fated Arctic. How near akin was his gallant spirit to that of him, who, during a subsequent and similar occurrence, after seeing every woman and child committed to his care safely rescued from his foundering bark, after sending the last parting message to his family, and discharging every duty without one lingering ray of hope, calmly assumed his commanding position on the deck of his vessel, and as she glided from under him into the yawning billows, instinctively uncovered to meet his fate and his God. While the wild waves are sighing a requiem over the unseen burying places of those illustrious dead, the benedictions of a grateful people are continually ascending over the forty graves of the martyred heroes of Norfolk. These were our companions, who died in the noble service of that calling to promote the best interests of which has assembled us together.

Gentlemen of the American Medical Association, we have convened for important purposes; great events are before us; the interests of humanity are here; the hopes of the profession are in this meeting; the eyes of the medical world are upon us. May we then so act in view of surrounding circumstances, that "The skill of the physician shall lift up his

† Prof. Carter P. Johnson, of Richmond, Virginia.

head; and in the sight of great men he shall be in admiration."

On motion, the thanks of the association were voted to the president for his able and instructive address, a copy of which was solicited for publication.

Dr. Grafton Tyler, of Georgetown, D. C., chairman of the committee on prize essays, reported that the essays received were three in number, each of which had been examined with great care; considering, first, the intrinsic merits of each essay, and then their merits in relation to each other. The first prize was awarded to "essay on the clinical study of the heart sounds, in health and disease," bearing the motto: "*Clinica clinice demonstrandum.*" The second prize was awarded to "an essay on vision and some of its anomalies as rendered by the ophthalmoscope," bearing the motto: "*Dux hominum medicus est.*"

Dr. Tyler then proceeded to open the sealed envelopes bearing the above named mottoes, and containing the names of the writers of the essays. The first was written by Dr. Austin Flint, of Buffalo, New York; and the second by Dr. Montrose A. Pallen, of St. Louis, Missouri. This is the second time Dr. Flint has won this distinguished honor, and the third time that it has been awarded to Buffalo since the association was organized, eleven years ago.

On motion, the report of the committee was accepted and adopted. Doctors Flint and Pallen were then invited to give *resumes* of their essays, which they did.

Dr. Lindsley, from the committee of arrangements, then presented an invitation from Dr. Nichols to visit the Insane Asylum, and another from Rev. Mr. McGuire to visit Georgetown College.

On motion of Dr. Hamilton, of New York, these invitations were accepted, and the thanks of the association were returned therefor.

On motion of Dr. Lindsley, the Hon. Doctors Fitch, of Indiana, Chaffee, of Massachusetts, Clawson and Robbins, of New Jersey, and Shaw, of North Carolina, members of Congress, and Dr. Peter Parker, ex-commissioner to China, were

elected "members by invitation," and requested to participate in the proceedings of the association.

On motion, Assistant Surgeon Frederick A. Rose, of the British navy, who so nobly volunteered his services, on board the United States ship *Susquehanna*, at Port Royal, and who came in her to New York, devoting himself to the sick crew, was unanimously elected a "member by invitation," and invited to take a seat upon the platform. [Applause.] It was announced that Dr. Rose had left the city.

Dr. Francis G. Smith, of Philadelphia, chairman of the committee on publication, made his report, showing the expense of publishing the annual volume.

Dr. Caspar Wistar, of Philadelphia, presented his annual report of receipts and expenditures, showing a balance on hand of \$806. Accompanying the treasurer's report was a resolution providing that the back volumes on hand, when over two years old, shall be sold at two dollars a volume, and that volumes V., VII., VIII., and IX., of which there are a surplus, be sold at \$5 a set to any member.

The special committee on medical education, of which Dr. G. W. Morris, of Philadelphia, is chairman, were called upon to report. There was no response; and, on motion, the subject was referred to the committee on nominations.

Dr. A. B. Palmer, chairman of the committee on medical literature, asked leave to defer his report until Wednesday, at 10 o'clock; which was granted.

A report was made by the committee on nominations, which was accepted; and the association then elected the following

OFFICERS:

President, Dr. Harvey Lindsley, of Washington City. *Vice Presidents*, Drs. W. L. Sutton, of Kentucky; Thomas O. Edwards, of Iowa; Josiah Crosby, of New Hampshire; and W. C. Warren, of North Carolina. *Secretary*, Dr. A. J. Semmes, of Washington City. [The other Secretary will be elected when the location of the next association is selected.] *Treasurer*, Caspar Wistar, of Philadelphia.

On motion, Drs. Flint, of New York, Gross, of Pennsyl-

vania, and Gibbes, of South Carolina, were appointed a committee to conduct the President elect to the chair.

Dr. Lindsley, having been introduced to the association by the retiring President, Dr. Eve, made a few pertinent remarks, acknowledging the honor as the highest he had ever been called upon to receive, and the highest that any medical man in America can receive. [Applause.] Unaccustomed to preside over so large a body, and having had but little practice in presiding over smaller assemblages, he must throw himself upon the forbearance of the association, and look to the members for support in the discharge of his official duties. [Applause.]

On motion, the thanks of the association were voted to the retiring officers, for the able and impartial manner in which they have discharged the duties of their respective offices. [Applause.]

On motion, the ex-Presidents of the association present were invited to take seats on the platform.

The committee on medical topography and epidemics was called by States. A paper from the member from Maine stated that he will report next year. There was no response from New Hampshire, Vermont, Rhode Island, Connecticut, or Massachusetts. Dr. Smith, of New Jersey, read an able report on New Jersey, and the association then adjourned until this morning at nine o'clock.

EVENING HOSPITALITIES.

At eight o'clock in the evening the delegates, and the ladies who have accompanied them, paid a visit by invitation to the Executive Mansion. The East Room, with the adjacent suite of drawing-rooms, were brilliantly lighted, and were filled by about five hundred gentlemen, representing all sections of the country, and a hundred or more ladies. One of the delegates had seen upwards of fourscore years; others have but just entered upon the practice of their profession. The entire cabinet was present, with J. B. Henry, Esq., Marshal Selden, and Commissioner Blake.

From the Executive Mansion the delegates generally proceeded to Georgetown, where they were hospitably entertained at the residences of Dr. Grafton Tyler, at the corner of Gay and Washington streets, and of Dr. Riley, No. 91 Gay street.

SECOND DAY.

The association was called to order by the President, Dr. Harvey Lindsley, and A. J. Semmes, one of the Secretaries, read the minutes of the first day's proceedings; which were adopted.

On motion of Dr. Watson, of New York, Dr. Delafield, of New York, one of the first officers of the association, was invited to take a seat on the platform.

On motion of Dr. Atkinson, of Virginia, an amendment to the constitution was received, providing that no person shall be recognized as a member or admitted as a delegate at meetings of the association who has been expelled from any State or local medical association, until relieved action of such State or local association. [Applause.]

Dr. Atkinson supported the adoption of this amendment in an eloquent speech, contending that the admission of any gentleman who has been rebuked by any State or local association, and is under its ban, is a rebuke to that association. He urged the acceptance of the amendment, and trusted that until the constitution be so amended it shall be the rule of action.

Dr. Bond, of Maryland, asked to have the qualifications requisite for a seat read. He desired information as to the ethical qualifications for membership.

Dr. Watson, of New York, stated that, as by the constitution it was necessary to have amendments lie over one year, this was not a question for present debate.

The President decided that debate was not in order, and the amendment was accordingly laid on the table for consideration at the next annual meeting.

Dr. Boyle, chairman of the committee of arrangements,

proposed the names of Doctors Huff and Knight, who were elected "members by invitation."

REPORT ON MEDICAL LITERATURE.

Dr. A. B. Palmer, of Michigan, chairman of the committee on medical literature, made an able and interesting report. After noticing in detail the periodical literature of the country, the spirit manifested in the editorial department of our medical journals is characterized as being (with a few exceptions) liberal, honorable, courteous, and just; and the feelings of fraternity are generally cordial and warm. Differences of opinion must be expected occasionally to exist, and different interests will sometimes come in collision; and, while this is the case, the imperfections of our common nature will be likely to produce some unpleasant results. But the bond of union produced by an interest in a common cause, and that cause so noble as the advancement of a great and benevolent profession, should certainly, as it usually does, smooth down asperities, and preserve that courtesy and kindness which ever should exist between gentlemen and brethren. From the contentions existing between the different portions of our common country, and which have so deeply affected the political, the religious, and the literary periodicals, the medical journals, with scarcely an exception, have kept aloof; and it is devoutly to be hoped that the influence of this portion of the press, combined with the harmonizing power of this association, may ever be exerted for the promotion of union both of hearts and States. [Applause.]

The American medical literature of the past year was then reviewed, and said to have been of a creditable character, although it could not be denied that the fruits of the profession are more practical than scientific. The new American Pharmaceutical Association was noticed and complimented. The works auxiliary to medical science, issued by the Federal government, were alluded to, and the example of the army and navy surgeons in taking meteorological and other observations commended to the brethren in civil life. The theses on the Parish-will case were noticed as exhibiting the pre-

eminence of American over British physicians. [Applause.] Prof. Agassiz and the support of his labors by the American public came in for a share of praise, and several improvements in medical instruments were mentioned.

In closing his report, Dr. Palmer presented the following *resume* of the leading positions taken by the committee: The periodical literature of the United States is regarded as possessing great abundance, variety, richness, and general excellence; and, though still possessing defects, is constantly improving. Many of the contributions are of great weight and value, indicating an enterprising and industrious profession. Serious defects are regarded as existing in the review department, arising mainly from the fact that the income of the journals will not justify pecuniary disbursements for literary labor, and editors necessarily engaged in other pursuits cannot command the time, if all possessed the ability, to do the work thoroughly and well. [Applause.]

A few well supported journals in place of the many, but illy sustained, might tend to correct this evil; but the multiplicity of local journals is considered as peculiarly beneficial, by collecting from a greater variety of sources a larger number of facts, and developing the powers of a larger number of writers. The interests of this part of our literature demand a prompt and liberal pecuniary support.

The number of original American medical works is increasing, and their character is improving, and, in some respects, particularly in practical utility, they will not suffer in comparison with those of Europe; yet serious imperfections exist, and great improvements are demanded. Great and permanent improvements in medical, as in general literature, must be gradual, depending more upon the advancement of education, of taste, and intelligence, than upon any specific measures which may be adopted. Still, various particular measures, such as the permanent writing of medical theses during professional pupilage, and keeping systematic records of cases when in practice, would do very much in hastening an improvement. But for the greater perfection of our literature, we must wait the further development of our country, and

for those changes of time and circumstances which shall produce a larger number of devoted savans and scholars, placing them in situations where a variety of absorbing pursuits shall not prevent the concentration of great talents upon a comparatively limited range of subjects.

On the subject of the reprint of foreign works, it is held that, while the free circulation of the best class of these works among us increases the knowledge and improves the taste of the masses of the profession, it does not interfere with the production of the higher order of original works; and that the moral obligation of our government to join with Great Britain in the enactment of an international copy-right law is by no means clearly established.

In conclusion, the committee would say that if, as sentinels placed upon the walls of our Medical Zion, they are asked in relation to its literature, "*What of the night?*" the response must be, "*The morning cometh!*" The darkness which has hung over that literature is breaking away. There is at least dawning in the East, and though the chariot of day may roll on but slowly, the full effulgence will come at last. [Continued applause.]

On motion, the report was accepted, and ordered to be published.

On motion, Dr. Bozman, of Alabama, was elected a "member by invitation."

REPORT ON MEDICAL EDUCATION.

Dr. James R. Wood, chairman of a special committee on medical education, made a lengthy report, discussing: 1st, primary medical schools; 2d, the number of professorships in medical colleges; 3d, the length and number of terms during the year; 4th, the requisite qualifications for graduation; 5th, such other subjects of a general character as to give uniformity to our medical system. Having reviewed these propositions at length, the committee have arrived at the following conclusions:

1st. Primary medical schools should be encouraged; but, as office instruction will continue to be sought by students,

practitioners should either give them necessary advantages of demonstrations, illustrations, and recitations, or if not prepared to do so, they should refer them to such primary schools, or medical men, as will give them proper instruction.

2d. The number of professorships should not be less than seven, viz: a Professor of Anatomy and Microscopy, Physiology and Pathology, Chemistry, Surgery, Practical Medicine, Obstetrics, and Materia Medica.

3d. There should be but one term annually, which should commence about the 1st of October, and close with the March following, thus lengthening the term to six months. The commencement of the term, in October, should be uniform in all the colleges throughout the country. During the session there should never be more than four lectures given daily.

4th. The qualifications for graduation, in addition to those now required by the schools, should be a liberal primary education, and attendance upon a course of clinical instruction in a regularly organized hospital.

In order to give our medical colleges an opportunity to consider the recommendations here advanced, and that this body may have the advantage of their wisdom and their mature views, before any definite action is taken upon them, your committee submit to the association the following resolutions:

Resolved, That the several medical colleges of the United States be requested to send delegates to a convention to be held at —— on the —— day of —— for the purpose of devising a uniform system of medical education.

Resolved, That the present report of the special committee on medical education be referred to such convention for its consideration.

Resolved, That said convention of delegates from the several colleges of the United States be requested to submit to the meeting of this association in May, 1859, the result of their deliberations.

On motion, the report was accepted and referred to the committee on publication, the accompanying resolution being laid on the table.

The committee on nominations reported Louisville, Ky., as the place of meeting in 1859, and nominated Dr. S. S. Bemis, of that city, as second secretary. They also nominated the following standing committees:

Committee on Publication—Dr. Gurney Smith, Pa., chairman; Drs. Caspar Wistar, Pa.; A. J. Semmes, D. C.; S. M. Bemis, Ky.; S. L. Hollinsworth, Pa.; S. Lewis, Pa.; H. F. Askew, Del.

Committee on Medical Literature—Dr. John Watson, N. Y., chairman; Drs. L. A. Smith, N. J.; C. G. Comegys, Ohio; R. W. Gibbs, S. C.; W. M. McPheeters, Mo.

Committee on Prize Essays—Dr. J. B. Flint, N. Y., chairman; Drs. M. Goldsmith, N. J.; H. Miller, Ky.; Calvin West, Ind.

Committee on Medical Education—Dr. G. W. Norris, Pa., chairman; Drs. A. H. Luce, Ills.; E. R. Henderson, S. C.; G. R. Grant, Tenn.; T. S. Powell, Ga.

Committee of Arrangements—R. J. Breckenridge, Ky., chairman; Drs. G. W. Ronald, B. M. Wible, D. W. Goodall, D. D. Thompson, N. B. Marshall, G. W. Burglass, R. C. Hewett, and A. B. Cook, all of Kentucky.

The report was accepted, the nominations were confirmed, and the committee received permission to sit again.

On motion of Dr. Hamilton, of Buffalo, the resolutions attached to the report of the committee on Medical Education were taken from the table.

Dr. Watson moved the appointment of a committee to consider the resolutions and report to-morrow.

Dr. Bond thought that the subject had already been sufficiently discussed. It had been brought up year after year, occupying much of the time of the association, and he trusted that it would receive immediate consideration.

Dr. Davis, of Illinois, wished to have the subject made a special order for some time prior to the adjournment of the convention.

Dr. Rogers, of New York, wished to have the report printed, that all might have an opportunity of examining it and the propositions which it embodies.

Dr. Wood defended his report as a conservative report, just alike to the professors and to the laymen. He did not believe that any good could arise from a further discussion of the subject. None had arisen in years past—none could arise now. It was a bill of conciliation and of adjustment. Laymen of the profession merited censure for sending men to college not qualified for the profession, and colleges merited censure for sending men out not qualified to practice the healing art. [Applause.] He approved of the motion of Dr. Watson, that the report be submitted to a committee of delegates from colleges.

A debate on a call for the previous question of Dr. Watson's resolution then ensued, in which several gentlemen joined, each one apparently having a different idea of "parliamentary law," and neither of them displaying a very correct knowledge of the subject. It was remarked by an old member of the association that "parliamentary discussions must be a *local epidemic*."

The report was finally referred to a select committee, to be composed of one member from each delegation representing a medical college or school.

On motion, thanks were voted to the late secretary, Dr. Foster, and his successor, Dr. Bemis, took his seat.

Dr. Hamm, of Pennsylvania, moved a suspension of the rules for the purpose of reconsidering the resolution of Dr. Condie, accepting the apology tendered by Dr. Bryan. The vote upon suspending the rules stood—ayes 111, noes 82. The president ruled that a two-third vote was necessary, and decided the question as lost.

An appeal was taken from the decision of the chair, and the decision was not sustained. A vote was then taken, and the resolution accepting the apology of Dr. Bryan was reconsidered by a vote of—yeas 142, nays 70.

An attempt was then made to connect the resolution with that accepting the apology of Dr. Reese, but it was decided that it would first be necessary to dispose of the resolution reconsidered, and it was laid on the table.

A member from New Jersey hoped that the McClintock

case would be brought fairly and squarely before the association, and that gentleman would be made to "face the music." It was useless to cloak it, or to attempt to dodge the responsibility.

Dr. Beck, of Indiana, moved an indefinite postponement of the whole subject.

Other gentlemen rose to speak, but the president decided that a motion to postpone was not debatable.

Dr. Jewell rose to a point of order, and protested against being "gagged." [The president here reversed his decision.] Dr. Jewell said that the action of the day previous was regretted, and that gentlemen had acted hastily. Many, who at first sight voted to accept the apologies, now regretted having done so.

Dr. Hamm, of Philadelphia, explained the action of the Philadelphia County Medical Society, and began to read a remonstrance from it, which he desired to incorporate into his speech.

Dr. Biddle objected to the reading of this remonstrance, as a violation of plighted faith.

It was here moved and decided that the association go into "committee of the whole," and Dr. Edwards of Ohio, was called to the chair.

A member hoped there would be no rules of order except what the chair would prescribe.

The Chair. "I will prescribe enough." [Laughter.]

Another member inquired if it would be proper to discuss the remonstrance? *The Chair.* "A gentlemen who has the floor can discuss anything on the face of the earth." [Laughter and applause.]

The remonstrance was then read. It was a long document, giving a detailed account of the recommendation by Dr. Reese of Dr. McClintock for a position in Blockley Hospital, after the last-named gentleman had been guilty of selling quack nostrums, and had thus committed an offense against the ethics of the profession.

Dr. Humphries, of Indiana, moved that each member of the committee of the whole be restricted to five minutes, allow-

ing Dr. Reese whatever time he wished to defend himself in.

Dr. Phelps showed that a ten-minutes rule was now in force. Dr. Cox moved, as an amendment, to make the time fifteen minutes; which amendment was lost, and the original motion of Dr. Humphries was then carried.

Dr. Reese then ascended the platform, and made a statement of his position from the commencement of the controversy. He considered his apology of the day previous a satisfactory one, but was willing to make it more so if it was objected to. He had not brought the subject before the association; but had been given to understand that if he made the apology which he had made, the remonstrance would not be offered. During his remarks there was a demand for the reading of the apology; which was read as follows:

To the Officers and Members of the American Medical Association: The undersigned, one of the vice presidents of the American Medical Association, having, during the interval since our last annual meeting, certified to the professional fitness for the charge of the Blockley Hospital, at Philadelphia, of an individual who had been expelled from this body for a violation of our code of ethics, after consultation with the other officers, and yielding to the advice of other personal friends, desires to say to the association now assembled—

1st. That, in giving said certificate, he was prompted solely by motives of sympathy and humanity to a fallen brother, who had been a personal friend prior to his offense; and that he did not realize, acting under the impulse of the moment, that his individual act could be construed by the profession as indicating hostility to his brethren.

2d. That while his own mind is clear that his certificate contained only the truth, and that, under his peculiar relations to the party concerned, he could not withhold his certificate of medical qualification, consistent with conscience and duty, yet he is ready to concede that he had no abstract right to relieve the party from the censure of the association until this body had restored him to his fellowship.

3d. That, so far from intending any disrespect to the association, or to its act of discipline, the undersigned had publicly

sustained and defended both. He therefore disclaims the inference from his certificate, that he intended to recommend to a high professional office a man whom the association had excluded, and thereby nullify the action of this body.

And, finally, with these statements and disclaimers, the undersigned, while retaining his own opinion of the rectitude of his motives, and of his duty, under the peculiar circumstances of the case, is nevertheless prepared to defer to the judgment of those whom he knows to be his friends, that he erred in doing what he had no right to do, in view of his official position in the association, and is hence called upon to offer this explanation and apology to his brethren.

(Signed)

DAVID M. REESE.

It was moved to refer the apology and remarks of Dr. Reese to a special committee of seven, to report to-morrow morning. Dr. Atlee, of Lancaster, and other gentlemen urged delay.

Dr. Payne, of Virginia, asked permission to relate an anecdote. He was reminded of two old Quakers, one of whom kept a store, while the other practiced law—both were members of a temperance society, and it was generally thought that the lawyer did not always keep his pledge. One wet, cold day a negro man went to the Quaker's store, and the good man gave him a drink of brandy. This was brought to the notice of the temperance society, and it was decided that the offender should be severely reprimanded. The lawyer was selected to carry out this sentence, and, taking the store-keeper into the woods, he thus addressed him: "Jeemes thee should be more circumspect!" [Continued laughter.]

Dr. Condie, of Philadelphia, wished to say that he had offered the resolution in good faith, but he denied that he had made propositions to the gentleman from New York, or that the Philadelphia committee had.

Dr. Bowling, of Tennessee, said that there was no question of veracity. Gentlemen on either side were correct. He had heard of misunderstanding, and of probable difficulty, and had earnestly endeavored to arrange it. He told Dr. Reese that if he had made an apology the remonstrance would not be pre-

sented, because he had understood gentlemen from Pennsylvania to say so. But he was now aware that those gentlemen did not in any way pledge the Philadelphia county medical society.

Dr. Condie hoped that a committee would be appointed to give the subject a careful consideration.

Dr. Cox, of Maryland, after complimenting Dr. Reese as an able practitioner and an experienced editor, whose labors have been of great value to the profession and to the country, said that he did not consider the statement full and satisfactory. The offence was not an unpardonable one, but the violation of that code of ethics which is the life of the profession should be properly atoned for. [Applause.] The apology was good enough, but it carried as its sting the mental reservation which Dr. Reese persists in. Nay, in his journal, issued simultaneously with this meeting, and circulated here, he says: "Having done right in certifying to the labors of our quondam friend McClintock, we resented the unmerited censures of our Philadelphia brethren." This completely stultifies the effect of the apology.

Dr. Ira Roche, of Philadelphia, explained his action and that of the Philadelphia county society in the matter.

Dr. Paine, of Vermont, Dr. Cox, and Dr. Bond made some rather sharp remarks. Dr. Davis, of Massachusetts, thought that Dr. Reese had but to admit that he had done wrong, and ask pardon without any mental reservation.

Dr. Reese said that he had intended to make a satisfactory apology. Such was his earnest wish and desire, and he wished to frankly state that he had no mental reservation, neither did he attempt to conceal anything. He made the statement which had been read without reservation and without evasion. [Applause.]

Dr. Conte expressed his entire satisfaction, as did numerous other gentlemen, several crossing to where Dr. Reese was sitting and shaking hands with him.

The committee of the whole then rose, and the chairman reported to the president that the committee had heard and discussed the apology of Dr. Reese, and that they considered that it was "ample, full, complete, and satisfactory."

On motion, the report of the committee was received and adopted.

The case of Dr. Bryan then came up, when it was suggested that his apology should be in writing. He expressed a willingness to make one as ample as was that of Dr. Reese.

Dr. Reese then drafted an apology, but several gentlemen insisted that he should insert the word "regret." Dr. Reese declined, stating that no gentleman would apologize for that which he did not regret, and that he would never be dictated to by any gentleman, even if the prison-door stood open on his right hand, and the stake was at his left hand.

Dr. Wood (who was greeted with loud applause) stated that he had been with the side which had offered the apology, but he did not consider the apology complete without the insertion of the word "regret."

Drs. Bonner, Clark of New Jersey, Hard of Illinois, Parker of New York, and other gentlemen participated in an exciting debate on the necessity of having the word "regret" inserted.

Dr. Reese added the following sentence: "and regrets that he has incurred the displeasure of his brethren." This was not favorably received.

Dr. Boyle, chairman of the committee of arrangements, here announced that arrangements had been made by which delegates who had purchased tickets on their way to the convention over the following roads could return free by exhibiting their cards of membership: Pennsylvania, Wilmington and Manchester, Illinois Central, Northeastern South Carolina, and Richmond and Petersburg.

The apology of Dr. Reese was again taken up, and discussed with spirit, although there was no manifestation of bad feeling on either side. At length he presented the following:

"The undersigned regrets that he certified to the professional qualifications for Blockley Hospital, Philadelphia, of an expelled member of this body, and hereby offers this apology for his departure from the ethical code."

This was received with loud applause, and, on motion of Dr. White, accepted as an ample and satisfactory apology.

Dr. Bryan submitted a similar apology, which was also

accepted, and then the committee adjourned until to-day at nine o'clock, a. m., evidently well pleased that this question was finally disposed of.

HOSPITALITIES.

At five o'clock, p. m., the delegates went in omnibuses provided for their use to Georgetown College, by invitation of the faculty. After examining this fine institution, which commands a magnificent view, and visiting its fine library, museum, and apparatus-room, the party were hospitably entertained; after which they returned to this city. In the evening there were entertainments given them at the residence of Dr. Thomas Miller, 246 F street; Dr. Wm. P. Johnson, 466 Seventh street; and Dr. A. Y. P. Garnett, 465 Ninth street.

THIRD DAY.

The president, Dr. Lindsley, called the association to order at half-past nine o'clock. The secretary not having his minutes in readiness, the reading of the minutes of the day previous was dispensed with.

Dr. Grant, of New York, asked leave to present a complaint against the New York Medical College, but upon information by Dr. Edwards that a committee on ethics would be recommended by the nominating committee, he withdrew his request.

The minutes were then read. Several proposals to amend them were made, and either ruled out of order or withdrawn.

The appointment during last year of Dr. Geo. Haywood, of Boston, as a delegate to represent the American Medical Association in kindred societies in Europe, was announced by Dr. Eve.

MEDICAL EDUCATION.

Dr. Hamilton, from the committee of delegates from medical schools and colleges, to whom was referred the report of the special committee on medical colleges, reported the following preamble and resolution :

Fully appreciating the value and importance of the resolution under which they were appointed, but a majority of the gentlemen constituting this committee not being authorized by the medical faculties of the several colleges with which we are connected to act as their representatives in this matter, and therefore regarding it quite impossible to secure a convention of delegates in the interim of the meetings of the association: therefore—

Resolved, That we recommend to all the medical colleges entitled to a representation in this body that they appoint delegates, especially instructed to represent them in a meeting to be held at Louisville on Monday, the day immediately preceding the convention of the American Medical Association for the year 1859, at ten o'clock, at such place as the committee of arrangements shall designate.

The report was accepted, and the preamble and resolutions were passed; after which several gentlemen claimed the floor, but the president decided that the reports of special committees were in order, the reports of committees on medical topography and epidemics having previously been referred to the committee on publication without reading.

Dr. Foster Jenkins, of New York, read a report on the spontaneous umbilical hemorrhage of the newly born; which was read and referred to the committee on publication.

MARRIAGES OF CONSANGUINITY.

Dr. S. M. Bemis, of Kentucky, read an able and learned report on the "influence of marriages of consanguinity upon offspring," from which we extract the following valuable statistical information:

Your reporter has made great effort to ascertain the proximate per centage of the deaf and dumb and blind to our asylums who are the descendants of blood intermarriages. This effort has not been successful from the difficulty principals of such institutions find in gaining the requisite facts. Parents are often sensitive on this score; and it is a delicate matter for principals to attempt investigations which the friends of the beneficiaries suppose to be unauthorized by the regulations of their various institutions.

I feel, however, that my researches give me authority to say, that over ten per cent. of the deaf and dumb, and over five per cent. of the blind, and near fifteen per cent. of the idiotic in our State institutions as subjects of those defects, are the offspring of kindred parents.

Aside from the facts which I have gained by corresponding with gentlemen who have given close attention to these points, a curious but perfectly legitimate process of computation confirms me in the opinion that those estimates are very nearly correct. The classes C, D, E, F, G, give 787 marriages of cousins, 246 of which have given issue to deaf and dumb, blind, idiotic, or insane children. Admitting the same ratio to prevail, the Ohio report, which contains 157 marriages of cousins, followed by deaf and dumb, blind, idiotic, or insane offspring, would indicate the existence of 332 other marriages of cousins in the same population not followed by such defects. The counties which furnish this 151 marriages, as above, and are supposed to comprise in their limits 332 unreported marriages, making a total of 483, contained in 1850 a population of 1,528,136. If the same ratio be supposed to exist throughout the Union there would be found to the twenty millions of white inhabitants six thousand three hundred and twenty-one marriages of cousins, giving birth to 3,909 deaf and dumb, blind, idiotic, and insane children, distributed as follows:

Deaf and dumb.....	1,116
Blind.....	648
Idiotic.....	1,854
Insane.....	299

Then, if the figures of the last United States census still applied to our population, there would now be found in the Union—

9,136 deaf and dumb, of whom 1,116, or 12.8 per cent., are children of cousins.

7,978 blind, of whom 648, or 08.1 per cent., are children of cousins.

14,257 idiotic, of whom 1,844, or 12.93 per cent., are children of cousins.

14,972 insane, of whom 299, or 01.9 per cent., are children of cousins.

I invite the attention of gentlemen of this association to this calculation of probabilities, either to confute or confirm it by any facts in their possession.

A very cursory examination of the tables of my report will suffice to show that *pari-passu* with the increment of the same blood the sum of defects of offspring is likewise increased. Classes D and G present exceptions to this rule. As it regards D, the supposed reason for this deviation has been already stated, namely: that its mortality list is so large; while class G presents so few observations as to satisfy us that they attracted notice solely because of their unfavorable results.

STONE CONTRIBUTED TO THE WASHINGTON MONUMENT.

Dr. John L. Atlee, from the committee appointed at the annual meeting at Richmond, in May, 1852, to procure a stone with a suitable inscription, to be inserted in the Washington National Monument, made a final report. It stated that Mr. Haldy, a marble mason of the city of Lancaster, Pennsylvania, had in his employment a young man, Mr. J. Augustus Beck, a native of Litiz, Pennsylvania, who had given unmistakable evidence of genius as a sculptor. At the suggestion of the late lamented Dr. A. L. Pierson, of Salem, Massachusetts (made at the meeting in New York, just ten days before his death), the design of the celebrated painting of Girodet-Tricoson, representing Hippocrates refusing the presents of the Persian King, Artaxerxes, and his invitation to leave Greece, and reside and practice among her enemies, was selected. This was sculptured upon a block of Vermont marble, with the motto, "*Vincet Amor Patriæ*," and the stone is now at the monument grounds. The entire expense was \$1,000, of which one-half was paid to the young artist. The amount contributed by members individually was \$501 30; the balance was voted from the treasury of the society. Accompanying the report was a letter from the secretary of the Washington National Monument Association, and a resolution of thanks to

the railroad companies by whose liberality the stone was brought to Washington, free of charge. The report was accepted, and the resolution was passed.

REPORT ON THE FUNCTIONS OF THE CEREBELLUM.

Dr. Palmer, of Buffalo, read a report, made by Dr. E. Andrews, of Chicago, Ill., on the "functions of different portions of the cerebellum," of which the following is an abbreviated report:

The cerebellum is divisible into three lobes, one median and two lateral.

The muscular system of most animals is divisible into two groups, viz: those which act upon the anterior extremities and the adjacent parts of the trunk, and those which move the posterior extremities and the corresponding portion of the trunk.

The report shows that there is a direct ratio between the strength and bulk of the anterior group of muscles and the size of the median lobe of the cerebellum.

Also, that the lateral lobes manifest a double ratio, their size being as to the strength of the posterior group of muscles, and also as to the size of the hemisphere of the cerebrum.

It is inferred that the action of the cerebellum is to *excite* motion, and not merely to *co-ordinate* it; that the influence of the median lobe is chiefly expended upon the anterior group of muscles, and that the action of the lateral lobes is in some manner double, part of their influence acting upon the posterior group of muscles, and part of it having some relation to mental power, whose exact nature is not yet understood.

The facts and arguments are drawn from comparative anatomy, and illustrated with outline drawings.

Dr. Campbell, of Georgia, read a report on the "nervous concomitants of febrile diseases," which was accepted, and referred to the committee of publication.

Dr. J. Marion Simms, of New York city, read an abstract of his report on the treatment and of the results of obstructed labor, illustrated with a series of magnified illustrations. The Doctor seemed perfectly familiar with his subject, and was frequently applauded.

Dr. Stephenson, of New York, read an interesting abstract of his report on "the treatment best adapted to each variety of cataract, with the method of operation, place of selection, time, age, &c." Dr. Stephenson is the surgical director of the New York Ophthalmic Hospital, an institution which relieves hundreds every year from sufferings with diseases of the eye, besides enabling pupils to receive invaluable instructions.

On motion, other reports were called for, read by their titles, and referred to the committee of publication.

COMMITTEES FOR THE ENSUING YEAR.

Dr. Edwards, from the committee of nomination, offered the following list of committees for the ensuing year, which was accepted, and the committees were chosen:

Special Committee on the Microscope.—Drs. Holsten of Ohio, Dalton of New York, Hutchinson of Indiana, Stout of California, and Ellis of Massachusetts.

Special Committee on Medical Jurisprudence.—Drs. Smith of New York, Hamilton of Buffalo, Crosby of New Hampshire, Purple of New York, and Mulford of New Jersey.

Committee on Quarantine.—Drs. Harris of New York, Moriarty of Massachusetts, La Roche of Pennsylvania, Wragg of South Carolina, and Fenner of St. Louis.

Committee on Surgical Pathology.—Dr. James R. Wood, of New York, chairman.

Committee on Diseases and Mortality of Boarding Schools.—Dr. C. P. Mallengly, of Kentucky, chairman.

Committee on the various Surgical Operations for the relief of Defective Vision.—Dr. Montrose A. Pallen, of St. Louis, chairman.

Committee on Milk Sickness.—Dr. Edward A. Murphy, of Indiana, chairman.

Committee on Medical Ethics.—Drs. John Watson of New York, Dalton, of Massachusetts, Emerson of Pennsylvania, Hamilton of New York, and Gaillard of South Carolina.

RESTORATION OF DR. BAILEY.

Dr. Edwards also reported from the committee of nomination the following resolution:

Resolved, That a committee of nine be appointed by the chair to wait on the Hon. Howell Cobb, Secretary of the Treasury, and respectfully to request the restoration of Dr. M. J. Bailey, as inspector of drugs and medicines for the port of New York.

Dr. Edwards, in an elaborate and eloquent argument, urged the adoption of this resolution. He considered the law regulating the inspection of drugs and medicines an important law. Its *paternity* could be clearly traced to the action of this association in Baltimore. He had urged its adoption at that time; he had taken it from there into Congress, and he had received upwards of nine hundred letters, advising, instructing, and aiding him. He had succeeded, and he felt that in so doing he had performed a great work. In obtaining the passage of the act, he had been seconded by Dr. Bailey, who had for years been an inspector of drugs, with a view of ascertaining their commercial value, for the custom-house, and had discovered that two-thirds of the drugs and medicines imported were adulterated, some of them grossly adulterated. After the passage of the act, Dr. Bailey was very properly appointed, and had given the most perfect satisfaction to the colleges of pharmacy, to practitioners, to all concerned.

Yet after filling the office acceptably, Dr. Bailey had been removed. There was no paper on file against his qualifications, against his fitness, against his ability; but he had been removed upon the recommendation of four New York gentlemen. To show the strength of this recommendation, he would name one of these gentlemen. Isaiah Rynders! [Laughter.] Such was the authority upon which Dr. Bailey was removed.

Now, he did not intend to quietly see a gentleman so eminently qualified as Dr. Bailey is put one side upon such a recommendation, to give way to a man who is said to be unfit for the place. Doctors Fitch and Chaffee had prepared a bill repealing the law in Congress, for it would be better to have no law than to have it thus administered. He would second them with all his might. The bill was the only public act with which his name was connected, and, feeling for it the

love of a parent to a child, he would prefer seeing it abolished to seeing it misadministered.

Dr. Tyler, of Georgetown, rose to reply, but gave way to permit Dr. Condie to have some special committees on medical subjects appointed.

Dr. Palmer moved to adopt the appointment of these committees as recommended; which was carried.

Dr. Tyler said that there was no member of the medical profession in the country who felt more indebted than himself to Dr. Edwards for his agency in procuring the passage of the law for the inspection of drugs and medicines. [Applause.] It was unnecessary to say a word in regard to the benefit which has resulted from the passage of that law, nor did he wish to be misunderstood in his opposition to the resolution. But when it was proposed to appoint a committee to wait upon an executive officer of government, and dictate to him, he felt that it would be turning aside from the purposes for which this association was organized.

The gentleman who introduced the resolution had said that Dr. Bailey would not have turned from his laboratory to elect a President. He commended him for it. But he would not have this association leave its noble sphere of action to approve or to denounce an appointment avowedly made upon political grounds. [Applause.] If the association leaves the field for which it was organized, and in which it has steadily labored for eleven years, he felt confident that it would result in no good; it might result in injury. He had not anticipated this action. He had given the subject no consideration; but it struck him as directly in opposition to the prosperity and the popularity of the association, and he asked gentlemen to pause ere they voted for the resolution.

Dr. Bolton, of Virginia, urged the adoption of the resolution.

Dr. Cox, of Maryland, concurred with Dr. Tyler in acknowledging the value of the services of Dr. Edwards, and he also concurred with him in objecting to the political, personal, and special character of the resolution which that gentleman had presented. The passage of such a resolution would open the

door for unpleasant action hereafter. If a change was recommended at New York, one would be recommended at Boston, at Philadelphia, and at Charleston. That it would be well to disconnect these offices from politics he would admit; and he would consequently offer the following resolution, as a substitute for that of Dr. Edwards:

Resolved, That the appointment of inspectors of drugs and medicines in the various ports of the United States should, in the opinion of this association, have regard to the essential, moral, and scientific qualifications of the candidates, and not to considerations of personal favoritism or political bias.

Dr. Edwards trusted that the substitute would not be received by the association. The present occupant of the post at New York was notoriously unqualified for it. He wondered that gentlemen should object to seeing him displaced to make room for the reinstatement of a gentleman whose qualifications no one could question. Nor did he think that the Secretary of the Treasury would consider it an interference if the representatives of the medical profession of the whole country made a suggestion to him. Besides, Dr. Bailey is a democrat, and therefore the removal was not a political one. He had reason to believe that upon a proper suggestion, Dr. Bailey would be restored. If he was not restored, the law would be repealed before the close of the present session.

Dr. Tyler supported the substitute offered by Dr. Cox, as a fair compromise. He believed that the appointment of a committee would transform the association into a political machine. He honored the gentleman from Ohio for the evidences of a warm heart which he had exhibited in endeavoring to procure the restoration of a friend to office, but with him a great principle was at stake. Gentlemen who do not reside in this District may not understand how heads of departments are importuned about offices, and how jealously the motives of all who take part in the appointment or the removal of office-holders are scanned. He should prefer to see the resolution of Dr. Cox passed.

Dr. Dunbar inquired if it was the duty of a committee of nomination to nominate a candidate for inspector-general of drugs, at New York. [Laughter.]

Dr. Bachelder, of New York, called for the reading of the original resolution presented by Dr. Edwards.

Dr. Parker, of Virginia offered other resolutions as a substitute for those offered; which were lost.

The question was then taken on accepting the substitute offered by Dr. Cox; which was lost.

Dr. Wilcox, of Connecticut, offered an amendment to the resolution of Dr. Edwards, "disclaiming all political considerations." The amendment was accepted by Dr. Edwards.

Dr. Bachelder testified to the qualifications of Dr. Bailey, whom he had known from his pupillage.

Dr. Jewell, of Philadelphia, hoped that the resolution would not pass. If it did, he would ask to have a gentleman at Philadelphia removed. Boston members will do the same, and this association will be wholly occupied with offices.

Dr. Wood, of New York, said that he rose from a sense of duty, and frankly confessed that he should vote contrary to his personal predilections, which were in favor of Dr. Bailey. [Applause.] But an endorsement of him would be a bad precedent. If we are to make ourselves judges of any individual, we must make ourselves judges of all individuals. If we sit in judgment on the gentleman now holding this office, we shall gradually sink into political partisanship, and lose our present high position. He could not consent to sanction the public action of the association, although if a petition was drawn up for the reinstatement of Dr. Bailey he would be pleased to see it signed by every member present in his individual capacity.

Dr. Rodgers, of New York, said that the subject had not been brought before the association at the recommendation of the delegation from New York, and he moved that it be laid on the table.

The previous question was called and sustained. The motion to lay on the table was defeated—ayes 49, noes 64.

Dr. Sayer, of New York, eulogized Dr. Bailey as eminently fitted for the place, and condemned the present incumbent.

The resolution as amended was then carried by a vote of 79 ayes to 52 noes.

Resolved, That a committee of nine be appointed by the chair to wait on the Hon. Howell Cobb, Secretary of the Treasury, and respectfully to request the restoration of Dr. M. J. Bailey as inspector of drugs and medicines for the post of New York—at the same time disclaiming all political considerations.

Dr. Bohrer of Georgetown, chairman of the committee on special medical essays, stated that they had not had time to read, much less consider, the papers placed in their hands.

On motion, the committee on special medical essays was instructed to hand such papers as they deemed worthy to the committee on publication.

The president announced, as a special committee to wait on the Secretary of the Treasury, Drs. Arnold of Georgia, Atkins of Virginia, Buckley of New York, Hayes of Pennsylvania, Smith of New Jersey, McPheeters of Missouri, Hargraves of Alabama, Ritcher of Michigan, and Hooker of New York.

On motion, Dr. Edwards was added to the committee as chairman. He declined, giving personal reasons as an excuse, but the committee refused to receive it, and he was accordingly chosen.

A gentleman stated that he, with several friends, had voted for the resolution with the sole intention of moving its reconsideration.

Dr. Grant, of New Jersey, presented a complaint made by the Newark Medical Society against the Medical Institute of New York, for a violation of the ethics of the profession. Dr. Edwards presented a similar complaint, and Dr. Oakley a complaint from the Union and Essex county medical societies. They were received and referred.

Dr. Sutton, of Kentucky, moved that Dr. Jarvis, of Massachusetts, have further time to report on a uniform system of registration of births, marriages, and deaths, and that a committee be appointed to urge upon the census bureau of 1860 the importance of having a physician attached to it to collect vital statistics.

Dr. Kyle, of Ohio, proposed an amendment to the constitution by which no person can sit as a member or a delegate at meetings of this association who is not a graduate of a recognised medical college. Laid over for one year, under the rules.

Dr. L. A. Smith presented resolutions of the New Jersey Medical Society, praying for such changes of the constitution as would establish a board of census in every judicial circuit of the Supreme Court, who should examine and grant diplomas to all proper members of this association. Laid over for one year, under the rules.

Dr. Humphries, of Indiana, presented a resolution praying for an interchange of transactions of State and county societies; which was adopted.

Dr. Boyle, chairman of the committee of arrangements, presented the names of Professor Swallow, of Missouri, and Professor Mittag, as "members by invitation," and they were elected.

An invitation from Professor Bache to visit the Coast Survey bureaux, on Capitol Hill, was read, accepted, and a vote of thanks for the courtesy was passed.

Dr. Gibbs, of South Carolina, moved that Professor Henry be requested to favor the association with his views on meteorology at such time during the session as he may select. Carried unanimously.

Dr. Campbell, of Georgia, moved that the secretary place on record an expression of the regret with which the society has learned the death of Drs. C. R. Walton, S. W. Granton, Marshall Hall, T. Y. Simmons, Mitchell, and other members deceased since the last annual session. Carried.

VOTE OF THANKS.

On motion of Dr. Phelps, the following resolutions were passed unanimously, the members rising:

Resolved, That the thanks of this association are eminently due to the Regents and Professor Henry, of the Smithsonian Institution, for the ample and convenient accommodation afforded for the transaction of business.

Resolved, That the committee of arrangements are entitled to our praise and highest appreciation of their exertions to promote the comfort of the members and the best interests of the association.

Resolved, That to the physicians of Washington and Georgetown and the faculty of Georgetown College we accord the homage of our sincerest thanks for their elegant hospitalities extended to the members from abroad, by which the pleasure of their sojourn here has been so greatly enhanced.

Resolved, That we feel assured that the impressions on the tablet of memory received here, in our national metropolis, in this the first year of the second decade of the association, will long remain an evidence of the urbane attentions received not only from the Chief Magistrate and other public functionaries of our glorious Union, but of private citizens and the community at large.

Resolved, That the manifestations of union of heart and purpose in the action of this session inaugurate a new era, and call for devout acknowledgment to Divine Providence, and presage, as we trust, not only a bright future for the association, but also as contributing to the perpetuity and prosperity of our great national confederation.

On motion of Dr. Anderson, of New Jersey, it was unanimously resolved that the thanks of the medical association be presented to Rev. Dr. McGuire and his faculty of the College of Georgetown for their very cordial reception and entertainment of the association at the College yesterday.

Dr. Arnold, of Georgia, then exhibited specimens of a new method of medial preparations of some membrane incómprehensible to the reporter, but which was evidently very interesting to the association.

On motion of Dr. Foster, of Tennessee, it was resolved that after 1860, Dr. Hamilton have the privilege of using his report on "deformities after fracture," published in the Transactions, for a work which he proposes to publish.

Dr. Duhamel, of Washington, moved that a committee be appointed to investigate and report upon the "National Hotel disease."

Dr. Foster, of Tennessee, opposed the appointment of such a committee, as did Dr. Boyle, of Washington. Dr. Duhamel withdrew his motion.

Dr. Gaston, of South Carolina, exhibited a new instrument, of a novel construction.

Dr. Campbell, of Georgia, was not aware, until he had just heard permission granted to Dr. Hamilton, that he had transgressed in republishing in a work a report which he had contributed to the transactions of the association. [Cries of "Regret it," "regret it."] He did regret it, and asked the sanction of the society; which was granted.

The president appointed Drs. Miller, Antisel, and Garnet a committee to wait on the census bureau, as provided by the resolution of Dr. Sutton.

Dr. Dunbar moved a reconsideration of the vote appointing a committee to request the reinstatement of Dr. Bailey, and Dr. Morgan seconded it, but as Dr. Parker had been invited upon the platform, the motion was ruled out of order.

DR. PARKER'S CHINESE HOSPITAL.

Dr. Peter Parker, ex-commissioner to China, was then introduced, and was received with applause. He exhibited some curious specimens of *calculi*, as the results of thirty-eight operations upon Chinese. They were of various shapes and composition, and weighed from a few drachms up to three, seven, and eight ounces. His description of the operation by which these calculi were removed was deeply interesting, and it was gratifying to learn that out of the thirty-eight patients all but five or six recovered perfect health.

Dr. Parker proceeded to state that he has treated in China, at the hospital under his charge, fifty-three thousand cases. Pictures of the most curious cases he had brought to this country, and they were on exhibition in the room below. At no very distant period he hopes to place in a permanent form the result of his labors, with illustrations. [Applause.]

Among other cases, he had probably performed upwards of a thousand operations for cataract. On one day he operated in sixteen cases, the youngest being a mere child, and the oldest an old lady seventy-nine years of age. She came, led by a servant, submitted heroically to operations on both eyes the same day, and in a fortnight had her sight perfectly restored. [Applause.] In acknowledging a vote of thanks, Dr. Parker said he had among his patients all classes, from members of the imperial family down to beggars. His greatest difficulty had been to persuade his patients that he could not cure all diseases.

RECONSIDERATION OF THE DR. BAILEY RESOLUTION.

Dr. Dunbar claimed the floor, and urged the reconsideration of the vote appointing a committee to wait on the Secretary of the Treasury, and solicit the reinstatement of Dr. Bailey.

Dr. Payne, of Virginia, opposed the reconsideration.

Dr. Tyler advocated it, and asked if this association was formed to wait on executive officers, and to dictate to them who they shall remove, and who they shall appoint. Many gentlemen around him, he was assured, had voted for the resolution without due reflection, and he trusted with confidence in their sober second thought. [Applause.] The press and the profession, he felt confident, would denounce this association if it entered into the wide field of politics. It was instituted to promote the great course of science, not to join issue with government. [Applause.]

Dr. Morgan also advocated a reconsideration. He was not a partisan. Although he resides in Washington, he has no personal acquaintance with the President or the Secretary of the Treasury, but he was confident that they would not have made the change without good reason, and it was not the mission of this association to criticise or to attempt to change their views.

Dr. Palmer, after stating how little regard he had for the opinions of the press, inquired as to the present incumbent of the office. Is he capable?

Dr. Watson, of New York, said that Dr. Bailey had had his

circulars out since his "rotation," and the subject had been twice before the Academy of Medicine, who have ignored it.

Dr. Burns, of Brooklyn, said that he was not a politician, and that he was a personal friend of Dr. Bailey, but he hoped that the vote would be reconsidered.

A member from California related his experience there on a question as to the superintendent of a lunatic asylum. In his opinion the less the association had to do with politics, or with expressions of opinion on political appointments, the better. [Applause.]

Dr. McNulty, of New York, said that the question had been twice before the New York Academy of Medicine, and twice been voted down. The present incumbent, whom it is sought to oust, is a German by birth and education. He can read the invoices in whatever European language they may be sent, and he makes his own analyses, which it is reported the ex-inspector did not do.

After some "parliamentary" skirmishing, it was decided to reconsider by a vote of 51 ayes to 32 noes. And, on motion, the subject was then indefinitely postponed.

The association then took a recess of two hours, for dinner.

EVENING AND CLOSING SESSION.

The association was called to order at five o'clock, p. m. by Dr. Sutton, one of the vice presidents, who took the chair.

The amendments to the constitution, proposed at the annual meeting at Nashville, had been made the "special order." They were

1st. Amend the third article of the constitution, in relation to meetings, by inserting after the words "first Tuesday in May," the words "or the first Tuesday in June;" and also inserting after the words "shall be determined," the words "with the time of meeting." 2d. In article 2, omit the words "medical colleges," and also the words "the faculty of every regularly constituted medical college, or chartered school of medicine, shall have the privilege of sending two delegates."

Each amendment was separately discussed, and each was lost by a large vote. An amendment proposed at Philadel-

phia, in 1856, providing for the establishment of a permanent secretaryship was lost by a vote of 53 ayes to 84 noes.

On motion of Dr. Foster, of Tennessee, the secretary was directed to collect all the by-laws, and have them printed in the next volume.

An attempt was made to introduce a motion endorsing the accoustics and ventilation of the new Capitol extensions, but it was ridiculed by Dr. Sayer, and was withdrawn.

Various additional votes of thanks were passed, and, at ten minutes of seven, the association adjourned *sine die*.

EXCURSION.—The members and delegates of the National Medical Association were entertained last evening at the residences of Hon. Stephen A. Douglas, corner of New Jersey avenue and I street, Dr. Cornelius Boyle, 27 Four-and-a-half street, and Dr. J. F. May, 397 C street.

To-day there will be an excursion on the steamboat Thomas Collyer to Mount Vernon, Fort Washington, and the Pavillion, where a *planked shawl entertainment* will be given to the association by the medical profession of the District. The Thomas Collyer will leave her pier at the foot of Seventh street punctually at 15 minutes before 10 o'clock, a. m. Ladies accompanying delegates have been invited to join the party.

Excision of the fibular portion of the tibio-tarsal articulation, including three-fifths of the fibula. By J. W. HAMILTON, Professor of Surgery in Starling Medical College, Columbus, O., with wood cuts.

John Cosgriff, an Irish laborer, aged 28, presented himself for treatment at the surgical clinic of Starling Med. College, Nov. 3, 1857.

Present condition. Patient is pale, with a countenance expressive of anxiety and suffering, eats and sleeps fairly, has slight habitual acceleration of pulse, is gradually emaciating, is able to walk about, but was obliged to abandon labor some weeks ago. The left lower limb, from the knee to the base of the metatarsal range, is greatly enlarged, the part just

about the tibio-tarsal articulation is immensely so. This enlargement is admixed in its characters, some are those of solid oedema, others belong rather to hypertrophy. In the situation of the outer malleolus and extending around in every direction, but especially upward, from this point, is a large tumor. Anteriorly it overlaps the tibia, passing internal to its antero-posterior central plane. Externally and posteriorly it not only encases the fibula very deeply, but seems intimately associated with the tibia, passing internally, probably half an inch farther than the anterior portion. The mass possesses an almost bony consistence, is circular in its outline, and drops down upon the superior and lateral aspects of the astragalus and os calcis, so as greatly to restrict motion at the tibio-tarsal articulation, and maintain a state of slight extension of the foot. The leg, just above the ankle joint, is twenty-one inches in circumference. On grasping the foot and tibia firmly, and then shaking the tumor with equal firmness I am able to produce slight motion in the latter, with little disturbance of the former, in other words it is probable that the tumor and the tibia are not inseparably connected. On its outer aspect are three ulcers. These are the result of slight injuries received two months since and expose a disintegrating mass of osseous and sarcomatous tissue.

History.—About thirty months since the patient observed a slight painless mass, just behind the external malleolus. It grew slowly and was without pain, till four months previously, by which time it had attained half its present size. During these months it was painful and grew rapidly.

After a careful consideration of all the circumstances of the case, the patient declining an amputation, an excision was decided upon, with the understanding that, finding in the course of the operation, that it was impracticable, the leg should be amputated in its upper third.

The patient thoroughly anesthetized was placed on the operating table, in the surgical amphitheatre of Starling Med. College, Nov. 3, 1857; present Drs. Eels, Boyle, McMillen, and the class.

The operation was commenced with a semilunar exploratory

incision, extending from a point an inch anterior to the central portion of the ankle joint, thence curving inward along the lobe which overlapped the anterior surface of the tibia, thence gradually upward and outward, so as to terminate over the fibula, just above the tumor. Extending this deeply I came to the conclusion that there were no inseperable connections between this lobe and the tibia. Having thus given myself a reasonable assurance of the practicability of the operation, my incision upward was continued, but changed in its direction, so as to fall upon the axis of the fibula, ending at a point within three inches of its head, this first incision following its curve, being 15 inches in length. Then falling back upon the point at which it reached this bone, another was made around the posterior, outer, and inferior margins of the mass, terminating at the place of beginning. These were carried down deeply so as to expose the whole circumference freely. The next step had for its object to expose and divide the fibula above. To reach this bone in the enlarged condition of the soft parts, this incision was necessarily of great depth. Besides the bone was pushed back from its usual situation, thus not only demanding increased depth of incision, but giving rise to difficulty in identifying it. Having exposed it freely, and separated all the soft parts for the distance of an inch, the tissues were protected by passing around a piece of muslin and divided obliquely by the use of Hay's saw.

The muscles and interosseous membrane having been first carefully separated, down to the point at which the fibula was lost in the general mass, this was grasped firmly with a pair of strong forceps, but was found to be immovable. The incision around the base of the tumor were now resumed, and gradually, but with the greatest difficulty deepened. The lobe falling behind the tibia could not be reached by the knife at all, but fortunately seemed wedged firmly in among the parts, without having very much connection with them. At this stage a powerful lift upon the forceps grasping the upper end of the fibula, tilted out the whole mass, leaving only the ligamentous structure about the articulation to be divided by the knife. The immense chasm

left was traversed by the tendons of the three peroneal muscles, passed around more than two-thirds of the circumference of the tibia, exposed the bare outer superior surfaces of the astragalus and os calcis, and of course opened very extensively the ankle joint. The anterior and posterior tibial arteries and nerves were carefully pushed aside, the common peroneal artery was divided at a high point, and was the only one requiring ligation.

The dressings adopted were of the simplest description. Two interrupted suptures were used in the upper part of the wound, so as to make the surface fall together for the upper two and one-half inches. We were able, by the use of a few strips of adhesive plaster, to approximate the margins very slightly in the lower part of the wound, but still they remained separated by several inches. The chasm was now lightly filled with fine wet lint, the limb placed in an elevated position upon oil cloth investing a pillow, and one-third gr. Sul. Mor. was given with directions for repetitions of the dose.

Oct. 4—morning. Patient rested fairly. In the absence of the influence of morphine his suffering is great. Whole extremity warm; there is perfect re-action. The wound is already suppurating slightly. Continued treatment, adding the local use of lint wetted in cold water with frequent and regular changes.

Oct. 5 and 6. Was absent from city. The case was kindly attended by my venerable friend, Dr. Sachse. Saw the case on afternoon of Oct. 7. The wound was covered with sloughing shreds—pus very abundant and mixed with sloughs. The muscles and tendons traversing wound evidently destined to destruction by sloughing. The patient complained greatly of his heel.

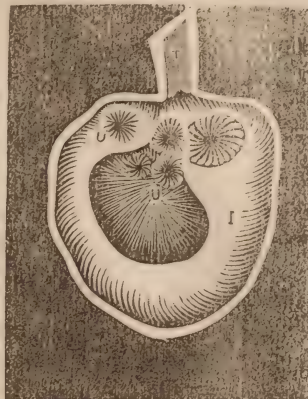
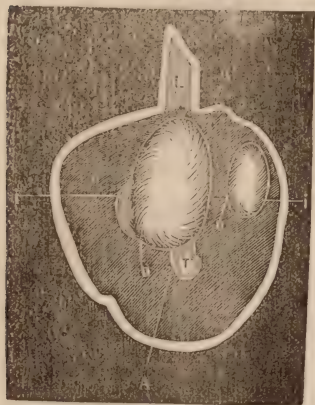
It is, perhaps, unnecessary from this point, to follow our notes. The sloughing above spoken of persisted for a length of time, was however very superficial. The tendons and parts of the muscular bellies of the traversing muscles separ-

ated en masse. The limb was kept lying for the most part on its outer aspect, partly to facilitate the escape of sloughs and pus, and partly to save the heel. Till the granulating process was thoroughly established, opiates, stimulants, tonics, and a liberal diet were enjoined. An unpleasant incident of this persistent sloughing stage, was the formation of a most painful abscess about the internal malleolus, which evidently communicated, both with the ankle joint and the large chasm between the tendo achillis and the tibia. From the time of the general initiation of the process of granulation, there was not an unpleasant incident; nor did the granulating surface present unhealthy characters for a day. At the end of 12 weeks cicatrization was complete. The limb had undergone great diminution in size. The ankle joint was ankylosed somewhat firmly, a sinus existed at the side of the internal malleolus. The foot was swelled and became painful when pendant.

May 23. About 6 1-2 months after the operation.

Condition of Patient and Limb.—The patient has grown fat, is probably heavier than ever before. The foot still swells when pendant, but is under no circumstances the seat of pain. The tibio-tarsal articulation is firmly ankylosed, the foot is slightly extended, and there is a barely perceptible bending or rotation of it inwards. When the leg is thrown forwards, so as to bring the whole plantar aspect to impinge evenly upon a flat surface, the patient is able, without inconvenience, to bear the full weight of the body. The same thing will of course be affected by the use of a high-heeled, strong-soled shoe, which being prescribed, it is confidently calculated that the use of the limb will be, at once, resumed. There is still occasionally a slight sinus near the internal malleolus. There is also a slight prominence on the outer surface of the calcaneum, which it is hoped, is only an exaggerated appearance of the tubercle which often separates the grooves for the tendons of the peroneus longus and peroneus brevis muscles, made prominent here by the diminished thickness of the vicinal soft parts.

Description of the Morbid Specimen.—This, as well as an understanding of much of the foregoing, is greatly facilitated by the accompanying wood-cuts. Its outer or cutaneous



aspect is represented by the figure at the right. N the fibula. U, U, U, represent as many distinct ulcers. These are excavations of very considerable depth, exposing the ordinary characters of osteo sarcomatous growths. The figure at the left represents the inner or deep aspect. L the fibula. T the malleolus. U, U, the lobes which overlapped the tibia, the smaller one anteriorly, the larger one posteriorly. Between these laid the tibia. The malleolus preserved its ordinary attachments and relations, but in close connection with it the fibula curved backwards. The distance from the malleolus to the lower outline of the tumor is very considerable. Circumference of the mass in the direction I, I, 15 inches. In the direction A, A, $16\frac{1}{2}$ inches; length of fibula removed 8 1-2 inches. The whole mass weighs slightly more than 2 1-2 pounds.

Remarks.—Extra articular exsections of the fibula are rather frequent operations, the necessity originating usually in compound fractures. In these cases the greater part of the work is done by the circumstances of the accident, a projecting portion merely being sawed off. In a few cases of this kind the foot has undergone rotation inwards; but this is the exception, the rule being that large portions of the body of the bone may be lost, without seriously impairing the function of either leg or foot. Bourienne speaks of a case, in which three

fingers' breadth of the fibula was destroyed by a bullet, but which nevertheless recovered. The same result took place in a case cited by Gavard, in which a sixth part of the body of this bone was extracted, in consequence of a fracture from a ball. Logan exsected a portion of the fibula to tie the posterior tibial artery. All this, however, except as to the proportion of the bone lost, is nothing more than is frequently observed in common practice. Cooper's work on dislocations, &c., contains many such.

Exarticulations of this bone, however, at either extremity, are much less frequent. Malgaigne removed the upper third of it. Gouey, in 1716, published the case of a man, in whom an empiric, without any apparent reason, extirpated the lower part of the fibula, which had been fractured at three fingers' breadth above the malleolus. In spite of other accidents the patient got well, and could walk without a cane—Valpeau. "In 1810, Mulder exsected five inches of fibula," and we infer that it included the external malleolus. "M. Champion operated in the same manner, on Therese Peru, who has repeatedly since, walked three miles to show herself to Roux, Flamart, Fodere, &c."—Ib. The best account, however, which we are able to get of these cases, leaves much doubt as to the character of the operations, and gives us no information whatever as to the effect upon the tibio-tarsal articulation. "Percy and Laurent say, we have a *fibula entire* which we disarticulated above and below."—Valpeau. This however we infer was a sequestrum. The resection of the entire bone was recently performed by Seutin. So it is stated by South. Yet from his description of the operation it is evident that the articular extremities were left, and only the body removed.

Prospective utility of the limb in this case.—Resort to exarticulation in the above case, originated in this view: that in removing the external malleolus, and with it the great extent of diseased structures, there would of course be inflicted such an injury to the joint, as could not fail of being followed by firm ankylosis. There being such ankylosis, and all the tissues on the fibular aspect of the articulation, being blended and condensed in the cicatrix, there would still be the most

adequate means for the prevention of dislocation; while the proper tarsal articulations, escaping ankylosis, and attaining increased mobility, were expected in a great measure to compensate. The patient already seems to enjoy the realization of most that was anticipated.

There is an allusion in the above, to an imperfect suppuration, as occurring within the first twenty-four hours. This was an interesting feature. It was undoubtedly simply the breaking down, the disintegration and escape, of the adventitious, and consequently imperfectly organized materials, with which the tissues of the limb were so extensively infiltrated. There was no appearance whatever of the healing process until the enlargement growing out of the presence of these materials had disappeared.

Off New Years and Staten Island, South Atlantic. 72d day out, lat. 55½, S.

A N. W. wind sprang up last night and brought us around the east end and along the south side of Staten Island against a strong ocean current, and as the sky was clear, affording us a fine view of the E. S. E. and south side of this barren snow-capped mountain island.

We made from seven to eight knots per hour till eight, P. M., when we were struck by a heavy squall from the S. W. Saw an abundance of porpoises about these islands yesterday, and for the first time during the voyage saw the "Penguin," order *Natatores* and *Alcidae* or Auk tribe. To me they present the most interesting appearance of any of the very numerous birds that inhabit these southern seas. I was anxious to capture one for closer inspection but could not. As they swim or glide along by us in the water, their beautiful heads and graceful necks present the appearance of the largest sized ducks, while their long backs with their peculiar ball and socket, snake-like motion of the vertebræ reminds one of a large reptile: in other respects like the back of a small seal. Their wings are very small, the feathers upon which present the appearance of scales, and they are better adapted as fins for paddles than for flight. Their body is long and their legs

placed far back, so that when they stand they are nearly erect. They cannot fly, but glide along on or near the surface with the rapidity of a fish. I have seen shoals of them keeping company with, and going ahead of our ship when sailing eight or nine knots per hour,—moving with a half swimming, half jumping and skipping movement, their short wings alternately propelling them onward and raising them out of the water.

73d day—*Off Cape Horn*, which is in lat. 55 deg., 59 min., lon. 67 deg., 16 min.

Monday Dec. 28, 1857.—Our noble bark bears us now, just off that world-renowned “out-jutting barrier of nature,” made prominent on all the charts of mariners, as marking the spot between the two mighty oceans that wash the shores of the two great continents, and upon whose bosoms floats the commerce of the world! Not alone in romance or nursery tales, emanations of idle, sickly brains, has it served to adorn a well told story, but it has been prominent in the history of shipwrecked mariners and disasters at sea; and has long been regarded as the out post of danger and the “abiding place of storms.”

Far removed by the hand of nature from civilization,—bleak, barren and repulsive—the representative of an immense region, uninhabited if not uninhabitable—only visited by the bearers of commerce, and the few hardy whalers who at times lay off its coast to watch its troubled waters for their gigantic game.

The weather is here, perhaps, the most variable in the world,—almost every kind is experienced during the same day. The mercury in the barometer falls much lower here than nearer the equator; with fair weather and clear sky it is just now 28.80 inches. We have been becalmed since 2 A. M. At 6 A. M. the heavens were hung with black, and we had a little rain. It cleared off between 8 and 9 A. M., wind west with a clear sky, and as we are now just south of it in lat. 56 deg. 35 min., S., lon. 67 deg. 26 min. We have a fine view of Cape Horn, with all drawing sail set.

“Horn Island” is the most southerly of the “Hermito” group. They present the appearance of a low range of barren,

snow-capped mountains, stretching themselves westward as we course along, as far as the eye can reach.

Just now,—mid-day,—here, where these two mighty oceans meet, their waters are in their stillest, loveliest mood—strikingly they contrast with the tumultuous heaving and asthmatic blowing that they presented during the storm of yesterday.

The sun now sets a little before nine and rises a little past three, with two hours of twilight and two more of dawn; daylight is never shut entirely out—and the brief space allotted to night is sometimes of surpassing splendor—lit up with all the glorious luminaries of heaven such as I have never seen bedeck a northern sky.

74th day, lat. 56 deg. 8 min., lon. 69 deg; barometer 28.65; thermometer 40 deg.—It rained and snowed all night; saw two vessels homeward bound. We passed inside the island "Diego Ramizez," within eight or ten miles to their north but the wind tacked, blew a violent gale, and to keep off land we made a south course.

The wind was so strong from the south and crowded us so hard toward the land, that after passing the "Diego Ramizez" Islands to the west, we tacked and made S. S. E. till we passed to their west and south and hard up to them. They are two huge rocks heaved up some two hundred feet high, bleak, rough and steep, and covered on some points with moss; great numbers of birds of the order *Natatores*, such as the beautiful penguin and the magnificent swan-like albatross hover around them. Early this morning we could still see the range of mountains known as "Cape Horn."

75th day. Lat. 57 deg. 22 min.; lon. 68 deg. 32 min.; ther. 34 deg. The coldest day since we have been in these seas. Hail, rain, snow, and fair betimes.

76th day. Squalls of wind, rain and sleet; rough weather all day, with head winds. The sun sets in this latitude little before 9 P. M., and rises a little past 3 A. M., with twilight and dawn from sunset till sunrise, so that one can read all night on deck without lamps. Saw several penguins to-day and a great variety of sea birds peculiar to this latitude.

Lieut. Gibbon, U. S. Navy, says, "no man is supposed by seaman to have a right to the privilege of grumbling at the world, or the winds, until he has doubled Cape Horn." Thus licensed, and as we imagine that we can *see* round this world-renowned and much dreaded, out-jutting barrier to navigation, we feel like preparing for a grand howl at the world and its inhabitants.

Friday, 77th day. Lat. 57 deg. 47 min., lon. 71 deg. 16 min. High winds and squalls till midnight; since which it has been calm till 8 A. M. Head winds blowing violently, with frequent and severe squalls, accompanied with sleet and rain; on the whole, a very boisterous day. Penguins, Albatrosses, &c., as usual.

Saturday, 78th day. Lat. 57 deg.; lon. 72 deg. 10 min. Thermometer, 6 o'clock A. M., 42 deg. Cloudy, wind N. W. Therm., 1 P. M. 45 deg., clouds and sunshine. Therm. 6 P. M., 43 deg., clouds and sunshine. Barometer 29, water 41 deg. Beat against head winds all night—first north, then south, without making anything on our course.

79th day. Lat. 57 deg. 9 min.; lon. 73 deg. 55 min.; bar. 28.80; water 41 deg. Therm. 6 o'clock A. M. 42 deg., cloudy and squally. Therm. 1 P. M., 42 deg. Therm. 6 P. M., 43 deg., clear and pleasant. Ship, bound east, in sight. This has been less boistrous than a few days past.

80th day. Lat. 56 deg. 20 min.; lon. 75 deg. 55 min. The roughest night from 2 to 10 A. M; during the voyage. Had to take in sail to prevent the masts being carried away. Therm., 6 A. M., 41 deg.; storm of wind. Therm., 12 M. 41 deg.; 6 P. M. therm. 45 deg.; bar. 29 deg. 25 min.; wind south; first fair wind for a week—making good headway; sea not quite so rough at noon. After 2 P. M. we carried nearly all sail, and it turned out very pleasant.

81st day. Lat. 54 deg. 45 min.; lon. 77 deg. 55 min.; bar. 29.50; wind changed to the east at 8 last evening; had a fine run all night. Therm. 6 A. M. 44 deg.; 1 P. M. 44 deg.; 7 P. M. 41 deg. Ship bound east, another west, com-

ing up. We think we have passed the worst of the stormy region. Mate harpooned two porpoises; lost both.

82d day. Lat. 52 deg.; lon. 78 deg. 35 min. D. R.; bar. 29.62. Made good headway last night. Therm. 6 A. M. 43 deg. Pleasant; wind S. W. by W. Therm. 1 P. M. 46 deg.; cloudy. Therm. 8 P. M. 45 deg; cloudy; high winds. Had a fine run all day. The bark which came up yesterday, passed us a little to-day; is still in sight at dark this evening.

83d day. Lat. 49 deg. 30 min.; lon. 77 deg. 42 min. Made a fine run all night; wind and course as yesterday. Therm. 5 A. M., 46 deg.; cloudy, rainy; 1 P. M., 53 deg.; sunshine; 7 P. M., 45 deg.; water 45 deg. Cleared off at 10 or 11 A. M., with fair wind. The bark of yesterday still in sight; spoke her about 3 P. M.; is a "Valparaiso bark," bound home. We passed her. Shoals of Porpoises, somewhat different from those in the North Atlantic.

84th day. Lat. 46 deg. 53 min. D. R. lon. 77 deg. 32 min.; bar. 29.70; therm. 5 A. M., 47 deg. Cloudy; wind west. Therm. 1 P. M., 51 deg.; cloudy; wind N. W. 7 P. M., therm. 44 deg.; cloudy and calm; water 49. A little milder than it has been since we left this latitude in the Atlantic. Our 1st mate caught a large Porpoise, which would probably weigh two hundred pounds. It made a fine repast.

We are now opposite "Wellington Island." This, the anniversary of the gallantly faught and gloriously won battle of New Orleans, has passed off quietly, except butchering the pig, harpooning a porpoise, and the stewardess getting into a row with every body.

85th day. Lat. 45 deg. 15 min.; lon. 76 deg. 52 min.; was pretty calm all night. Therm. 6 A. M., 46 deg; sky was overcast and cloudy. Therm. 12 M., 53 deg.; therm. 7 P. M. 51 deg.; wind N. W. "Valparaiso bark" standing ten miles to leeward, towards land. In sight of land at 10 A. M.; supposed to be "Huamblin Island."

86th day. Rather calm all night; making North, but losing one or two points; are now just off "Chiloe Island." We observe from day to day, a milder climate and brighter skies.

Sperm Whales, Albatross and Penguins still present themselves for our daily inspection. It is cooler than we expected to find it in this latitude in these seas in midsummer.

89th day. Lat. 35 deg. North; long. 75½ deg. west; therm. 58 deg.; bar. 29.90. Strong gale all day; the wind carried away our "outer jib." Right glad are we that we are so near the end of our voyage. At 8 P. M.; very pleasant; wind south and S. by E.; making fine headway.

90th day. Lat. 34 deg. 3 min.; bar. 29.75; high wind and pretty rough all night. Therm. 6 A. M., 58 deg.; clear and pleasant. Therm. 12 M., 59 deg.; pleasant day, but a kind of mist pervades the atmosphere, so that we did not see land till 2 P. M., though hard by our port of destination.

91st day. We were hove up to the bay of Valparaiso last evening, but the fog warned the Captain to stand off during the night; and this morning, at day-light, we entered the harbor and were anchored before 10 o'clock; just ninety days and a few hours from New York; having had as short a voyage and as pleasant a passage as often falls to the lot of man. To Capt. Boullett, whose excellent qualities of head and heart, fit him for any sphere of life, and whose uniform kindness and attention has endeared him to us all, we feel it our duty to return our kindest acknowledgements. To his gentlemanly officers, and his good crew, we bid adieu; wishing them eminent prosperity. And to the noble little bark that bore us safely and gallantly half round the world, God speed thee, in all thy future ploughings of the deep!

"Eternal Ocean! old majestic Sea!

Ever I love from shore to look on thee;

And sometimes on thy billowy back to ride,

And sometimes o'er thy summer breast to glide;

But let me *live* on land, where rivers run,

Where shady trees may screen me from the sun."

Truly yours,

W. T.

Morphæa Alba Hyperaesthetica.

I have met with four cases of a remarkable cutaneous disease. Not having seen any notice of like cases in our journals, I have thought that they might be a matter of interest to the profession. If every man of only my experience has met an equal number of similar cases; this fact would prove the prevalence of an intractable disease.

CASE 1.—Rev. G. D., aged 40. In 1849 he applied to me, for some white spots, which first appeared on his hands and arms, and afterwards extensively on his person. At this time he was Professor of Mathematics in —, of sedentary habits. During the summer of '47 and '48, white spots appeared, surrounded by a brown appearance of the epidermis, and almost disappeared in the winter, but after '49, they remained permanent, gradually increasing in number and size until the white became predominant and the brown became the spots. He had poor health,—palpitation of the heart, and indigestion, with indisposition to exertion. The white spots caused no unpleasant symptoms except they were more sensitive to the touch, and easily burned by the sun. But they were remarkable for not changing in appearance after being sunburnt. The spots were not surrounded by any morbid appearance, as erythema which generally attends similar diseases. The functions of the skin, in the spots were not changed except more sensitive than natural.

In a letter July 16, '56, Mr. — said, "For the last two or three years the white predominates * * * The white appears more sensitive than the other parts—perspires easily, never tans or freckles—as easily burned by the sun as a child's skin, and almost as fair and transparent as an infant. My hands and arms are now perfectly white. I have 'whitened out' faster during the last year than formerly—health pretty good—not rugged—as good as for the last ten years—heart affection better. You know at S—— I took iodine and Fowler's solution without much benefit. Lately I have taken nothing." In the summer of 49, I prescribed Lugol's solution of iodine as an alterative, alternated with Fowler's solution, and tincture of digitalis leaves for the palpitation "pro

re nata." By the exhibition of these remedies and more active exercise the health improved, but there was no perceptible change in the cutaneous affection, which has progressed till the whole person has become almost perfectly white—a delicate "marble white."

CASE 2.—Mr. T. A., aged 50, farmer, of active habits—health not good since white spots appeared eight years ago. He says, "nothing that I have ever taken for this spotted disease, has done it any good."

In this case the spots have not increased so rapidly in size or number, as in the above, but they are very sensitive. He describes the crawling of a fly over them as a very unpleasant sensation. They burn or blister easily, and appear as white as ever after desquamation.

CASE 3.—Mr. H. B., aged 65, farmer—health not good for ten years at first—better last few years. The spots did not increase much in size until within the two years past. Case similar to the second, only of longer duration.

CASE 4.—Colored man. I am not familiar with the details of this case.

My treatment of the first case I think was not pursued for a sufficient length of time to fairly test its efficacy. The patient having removed to Iowa, I lost sight of him for several years.

Lately I have looked for some classification of these cases, and have found none which precisely corresponds to them. Mr. Wilson's description of *Morphœa* comes nearer than any thing I have seen. *Morphœa alba lardacea* will not correspond, for in this, the cuticle of the white spot is thickened and less sensitive than natural. In *Morphœa alba atrophica* vel *anæsthetica* sensation is diminished and the functions of the skin destroyed, the hair falls off and the sudorific glands are injured. The former sometimes follows the latter. In both of these the white spot is surrounded by a darker color of the cuticle, and generally by an erythematous border.

In my cases the functions of the skin remain, with very slight exceptions. The surface feels more delicate, but is uniform with the surrounding integument more sensitive than

natural. Hence I have named this affection *morphæa alba hyper æsthetica*.

Mr. Wilson's views of the pathology and treatment of these cutaneous diseases are eminently correct, and will apply equally well to the above cases; although we might not be willing to apply the same origin to the two forms of disease. (See *London Lancet*, vol. 1, '56.)

He regards all the varieties of *morphæa* as essentially blood diseases. "They are not confined to a single member of the body, and are attended with symptoms which prove the entire mass of the blood to be impregnated with the poison that gave them origin. * * * This is a blood disease, probably originating in an animal poison and manifests its existence by peculiar changes of the skin. * * * The symptoms are such as might be inferred to belong to a disease dependent upon the generation and accumulation in the blood of a poison; and the degree of violence of the symptoms may be supposed to have reference to the quantity of poison present and the susceptibility of the individual, sometimes the local disease, always slow and gradual in its progress, is unaccompanied by any constitutional disturbance; at other times a pretty smart fever indicates the accumulation of the poison to the point of excess, and nature's effort to expel it from the body. The direction taken by the poison being, as in the case of most other animal poisons, the skin and mucus membranes."

Treatment.—Drs. Danielson and Bæeck say, "Mercury has largely divided the opinions of physicians, because their diagnosis was inaccurate; and according to those who are known to have had experience of this disease, both that mineral and its compounds have been found to be not merely useless but also injurious."

"In the anæsthetic form, the iodide of potassium relieved the symptoms, and the same effects resulted from the use of the bromide."

"Thus the morbid blood will give place to a sounder and more healthy fluid. Alteratives should be given to alter and improve the chemistry of nutrition, than which there is none better than arsenic judiciously employed with cod-liver oil.

Thus sanguification will be directly benefitted and with sanguification, as a matter of course, invervation.

Elimination is to be rendered more energetic, to facilitate the requisite changes in nutrition. With this view the alimentary canal, the liver, the kidneys, the skin are all to be brought into play, to which end saline aperients and diluents are the appropriate remedies.

Elimination, stimulation and counter-irritation of the most potent emunctory, the skin, are all set in operation by baths—the sea bath, sulphuretted bath, and caustic bath, already mentioned. And for local purposes, the skin may be further stimulated by counter-irritation, and by the use of the moxa, or by cupping and leeching.”

This last quotation from Mr. Wilson, contains the sum of all treatment for any disease which depends upon an animal poison contained or generated in the blood.

The local application of counter-irritation will greatly aid elimination by the kidneys when they are torpid. And probably as much will be accomplished by stimulating these emunctories as any other in this class of diseases.

The above alteratives and eliminatives might be advantageously alternated with the syrup of iodide of iron, the ratio of iron and potassa, and the acetate of potassa given as an eliminator of the materies morbi.

WM. J. SCOTT.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Outlines of a course of Lectures on the Principles and Practice of Surgery. Delivered by E. GEDDINGS, M. D., Professor of Surgery in the Medical College of the State of South Carolina; prepared by THOS. S. WARING, M. D., and SAMUEL LOGAN, M. D., and revised by PROF. GEDDINGS.

The above is the title of a new work just issued from the press of S. G. Courtney & Co., Charleston, S. C. As intimated, it is peculiar in its origin; and seems, from prefatory notes, to be two-fold in its object. That of the lecturer seems to have

been to furnish, in permanent form, an epitome of his lectures, for the use of the alumni and classes of the institution with which he is connected; while, by the introduction of essays on various topics, Messrs. Waring and Logan hope to render an acceptable service to the profession by giving completeness to it as a systematic treatise on surgery.

So far as the object of this book is to epitomize Prof. Geddings' lectures, and thus put the main points into a permanent form for the benefit of his classes, we are pleased with it. Such a work tends to supersede the necessity of taking notes; embodies, too, more accurate and fuller notes than most students can take; allows him to give undivided attention to the instructions of the lecturer as they fall from his lips, and affords, for the future, permanent means for referring back to cherished instructions. So high, indeed, is our estimate of the value of such a work, that we formerly regarded it as among the imperative duties of every man who expected to do much at lecturing on surgical subjects, to furnish his class with such an outline. An accomplished lecturer, possessing, at the same time, such a talent for condensing and arranging as is evinced by Druitt, or Erichsen, would thus render an invaluable service to his pupils.

The book before us is an octavo of 560 pages. The "outlines" constitute about two-thirds of it. The other third consists of essays. The "outlines" are certified to by Prof. G., as being a fair and faithful representation of his lectures, and are well enough; the essays, too, are respectable; but the blending of the two, makes neither a book of *outlines*, nor a book of *essays*. The book, accordingly, to our judgment, is not adapted to the wants of either the student or the practitioner.

While the interposed essays, by making it too bulky and too expensive, dispoil it of especial adaptation to the purposes of the former, its superficiality, its incompleteness, its want of proportion, unfit it for the purposes of the latter. As a specimen of the first of these traits, we mention the subject of Inflammation. The great foundation stone of the super-

structure of surgical science as it is, it is disposed of in eight well leaded pages. As illustrative of its want of proportion, we note, that while this subject is disposed of within the limits named, the subject of syphilis appropriates forty-four pages. As emplifying its incompleteness, the discussion of the subject of ulcers occurs to us. It contains the ordinary clasification. The several varieties are fairly described; the Indolent, in its treatment, is discussed with a minuteness and particularity of detail, appropriate to an encyclopedia. While this is all excusable, we cannot regard, with equal forbearance, the fact that if the student should study, not only this chapter, but the entire book, from its Alpha to its Omega, for that especial purpose, he could not learn what is meant by a healthy granulation; and not knowing this, how much can he be expected to know of the deviations from it?

So, in conclusion, we repeat that what seems to us to have been the original intention of Prof. Geddings, properly adhered to, (with more attention to its orthography and syntax than the work has received,) would have made this a useful book. The general arrangement is good. The points discussed are well selected, and the report on most subjects is sufficiently full and clear to be of very great service to the student, while on those on which it is deficient, the lectures themselves, being more full, might be expected to compensate.

We regret that it was not the pleasure of Prof. G. to present us with a systematic work, prepared by himself. That gentleman has long occupied a high position, and there is no doubt of his entire fitness for such an undertaking.

H.

A Manual of Medical Diagnosis. Being an analysis of the signs and symptoms of disease. By A. W. BARCLAY, M. D., Cantabet, Edin. Fellow of the Royal College of Physicians: Asistant Physician to St. George's Hospital, &c., &c. —Philadelphia: Blanchard & Lea, 1858. (For sale by J. H. Riley & Co.)

The author of this treatise on Diagnosis, had entrusted to him the duties of medical registrar at St. George's Hospital.

A large field of study being thus opened to him, he conceived the plan of the work before us. During the time that he held the office of Registrar, more than twelve thousand patients came under his notice.

The work opens with the "outline of the particulars which a clinical clerk ought to attempt to enumerate in the history of each case which he records."

Address; name; age; sex; civil state; occupation; (in females, number of children, date of last pregnancy; menstrual functions.)

History (a) of present attack; (b) of previous illness.

Present state.

1. General symptoms; (a) Skin, as to heat and dryness; (b) Pulse, as to frequency, force and fulness; (c) Tongue, as to coating and moisture; (d) Bowels and Urine; (e) Appetite and Thirst.

2. *Appearance*—Size; Aspect; Expression; Color.

Position—In bed; out of bed.

Sensations.

Survey of Regions and Organs. 1. *Innervation.* 2. *Respiration.* 3. *Circulation.* 4. *Digestion.*

Such is a summary of the points necessary to be invoked in making out a diagnosis. What is the disease? This book proposes to solve the problem by the method above indicated. The process, we need not remind the reader, is often difficult, sometimes impossible. To carry it on with any success, requires a high order of intellect, well disciplined. A great number of facts, phenomena, and events, connected with the history of the case, the symptoms, and effects of remedies, have to be interpreted and placed in proper position. *Faith* is called in requisition on the part of the physician, with reference to the *history* of the case; the *special senses* have to be called in requisition with reference to the symptoms, and effects of remedies; and the reasoning process then makes, or attempts to make, induction. How many who are engaged in the practice of medicine, think of these things—think of the necessity of guarding well the principle of faith, so as to

avoid imposition; of educating the senses, so as to avoid sensual illusion; of guarding well the reasoning process, so as to avoid sophisms?

Descartes, when about to commence his philosophical career, looked about him for a starting point. He wanted something of which he could be certain, to serve as a foundation for his superstructure. Every thing in Nature, Art, Society, or Religion, upon which his mind rested, seemed to be tinctured with uncertainty. He could find nothing, the existence of which was free from doubt, except *himself*. He said *Cogito, ergo sum*, I think, therefore I am. With this, he commenced his ontological and teleological inquiries. Commencing with consciousness as the basis of truth, as the only *ground* of certitude, he asserted mathematics the only *method* of certitude. Unable to find firm place in any of the prevalent systems of his day, mistrusting the conclusions of his own understanding, and the evidence of his own senses, he determined to make a *tabula rasa*, and reconstruct his own knowledge. It is worth while, in this connection, to notice the rules this great thinker suggested for the verification of facts. They apply to diagnosis as well as to ontology.

"I. Never to accept any thing as true, but what is evidently so; to admit nothing but what so clearly and distinctly presents itself as true, that there can be no reason to doubt it.

"II. To divide every question into as many separate questions as possible, that each part being more easily conceived, the whole may be more intelligible (Analysis.)

"III. To conduct the examination with order, beginning by that of objects the most simple, and therefore the easiest known, and ascending, little by little, up to knowledge of the most complex (Synthesis.)

"IV. To make such exact calculations, and such circum-spections as to be confident that nothing essential has been omitted.

The discrimination of diseases, not only involves great capacity, rigorous discipline and patient industry on the part of the physician, but also perfect freedom from all the influences of theory. A mind occupied with some particular theory,

although honestly desirous of truth, nevertheless is apt to bend facts rather than deduce from them their legitimate conclusions. This has been a serious obstacle to the progress of science in former times, and we are not yet free from its influence. Not that we have among us any one so far behind the age as to attempt those crude and hasty generalizations, which for example assert, that disease is a unit, or that fever is always symptomatic; but we have those who theorize in a small way. They see a certain symptom or groups of symptoms, and from such infer the existence of a particular kind of morbid action—or, perhaps, they draw their conclusions from the effects of a particular remedy, or a particular post mortem lesion. Now when it is known that symptoms are not always analogous, that structural lesions of the same character are often connected with different diseases and different grades of disease, that symptoms and lesions are modified by idiosyncrasy and the varying power of the cause, we are at no loss to see the futility of any other course of thought than that of letting the facts and phenomena of each case speak for themselves. No two cases of disease were ever exactly alike, and consequently any mode of thinking which does not observe the integrity of this truth will prove to be pernicious in its influences.

Every disease has been supposed by some very good minds to wear, at some stage or other, a certain livery by which it may be recognized. To this the name of "*pathognomonic*" has been given. If this were true it would simplify diagnosis very much,—but it is not. A symptom or an appearance indicating infallibly the presence of a particular disease very seldom if ever, exists. The disease in ninety-nine cases in a hundred can only be properly discriminated by the fullest and most careful consideration of every thing connected with its history, its symptoms, the effects of remedies, and its morbid anatomy.

So far from its being true that we have any one symptom that can be relied upon as entitled to the name "*pathognomonic*," the truth is, the same disease is scarcely ever characterized by the same symptoms. The susceptibility of persons

to the influence of noxious substances which we call *idiosyncrasy*, taken in connection with the varying power of the causes of disease, give rise to great dissidence in the way of phenomena, and induce an almost endless variety in the outward manifestations on the human frame. The perplexity thus produced involves in its explanation powers of the highest order.

The first chapter is on the "*Method of Diagnosis*." This embraces the "History of case; narrative of previous symptoms; arrangement of existing phenomena; plan of carrying on the investigation; classification of diseases necessary to diagnosis; table of diseases."

The author very properly states in this chapter, that the discrimination of disease ought to proceed upon a knowledge more or less complete of all the phenomena which a given case presents. First in order of importance is the "History." This embraces the report of the patient himself, or of his attendants, of what has happened before the physician saw him, and the phenomena actually observed at the time of examination. In this connection the author very justly remarks.

"Much care is necessary, not only to get at the first deviation from health, but also to avoid being led away by a preconceived idea in the mind of the narrator, and the more so if coming from a scientific person. So much does the mind seek after causes of all natural phenomena, that the simplest and most illiterate patient is more ready to broach a theory of his illness than to tell his sensations or his sufferings."

Besides the general summary of the whole subject of diagnosis, this volume goes pretty well into detail on the means of discriminating between individual diseases. There are still a few organs, the diseases of which are not yet appreciated by any constant phenomena. Among these may be included some of the ductless glands. The pancreas after death is often found in a state of cancerous degeneration. It never, however, stands alone, but is always conjoined with cancer of the stomach and duodenum. Such cases in some instances were characterized by diarrhoea *adiposa*, which circumstance

has had something to do with the theory that the office of the pancreas is to furnish a fluid that dissolves the fatty portions of food.

The author very fully recognizes the utility of the Microscope. Indeed, like others who are on the frontiers of diagnosis he regards the instrument as indispensable. Chemical analysis too in a great number of cases becomes necessary in order to elucidate appearances, or verify facts discovered by other methods.

We close our notice of this book with the following on *Pus* and *Mucus*:

“Pus and Mucus globules can scarcely be distinguished from each other, and are most readily known by their relative numbers. A few solitary globules may readily be known as mucus, a very large number as pus. They are also in some measure distinguishable by the circumstance that pus globules are more decidedly granular, mucus smoother and more uniform.”

Materia Medica and Therapeutics, with ample illustrations of practice, in all the departments of Medical Science, and very copious notes of Toxology, suited to the wants of Medical Students, Practitioners and Teachers. A new edition, revised and enlarged: By THOMAS D. MITCHELL, A.M. M.D., Professor of Materia Medica in Jefferson Medical College, author of *Elements of Chemical Philosophy*, etc., etc. Philadelphia: J. B. LIPPINCOTT & Co., 1857; pp. 820; 8 vo. (For sale by RILEY & Co.)

We have no great taste for the multiplication of books on *Materia Medica*. We would much rather see them all bled, purged, and vomited until there would be an evacuation of things futile, useless, redundant, inconsistent, and ridiculous. For a book containing a complete digest of what is known really of *Materia Medica* and *Therapeutics*, there is now a demand. But for one that has introduced into it every thing that, in ancient or modern times has had character as a healing agent; and for one that contains the silly remarks

and imperfect experiments of those whose minds have been vitiated with theories and crude generalizations, there is, as we verily believe, not only no demand, but scarcely a tolerance. Let it not be surmised that we are averse to details. We are not. With any thing that has the appearance of being a fact of a practical character, we have patience; but we confess our inability to see the propriety of increasing books, and swelling them too, into unnatural dimensions, when no other purpose is subserved than that of perpetuating the crude erroneous notions of predecessors. The most learned work we have, that of Pereira, is full of statements of what this and that physician has said in regard to the properties of certain drugs. These statements are often supported by nothing more than a single experiment. Such a method of testing the properties of drugs amounts to nothing more than what is denominated a "*FALLACIA ACCIDENTIS*"—*drawing inferences in regard to the nature of things from circumstances temporary; or an insufficient verification.*

The author before us has made an attempt to get up a practical work; and, after looking through it, we are not by any means prepared to endorse all that we find in it; nor are we at all certain that the plan and arrangement of the work, being arranged after the manner of the author's lectures, is the very best that might have been made.

Although it is very true that we have many articles, such as quinine, iodine, cod-liver oil, etc., the action of which is very imperfectly understood, and therefore very difficult of classification, still we feel very much indisposed to ignore classification altogether. There are quite a number of medicines that agree in their leading properties, although it is altogether probable that no two are exactly alike in all respects. Agreeing however in leading properties, it has been supposed they might be classed together. When a certain number of articles act on the nerves, where the impropriety of denominating them Neurotics? or upon the blood, the impropriety of classifying them as Hæmatics? We can see none. On the contrary, we think such an arrangement very much facilitates

the labors of the student. The author treats the articles of the *Materia Medica* in his lectures on the strictly alphabetical plan. This also was the plan of the late Dr. Eberle.

The following is a classification by Headland, as we find it in the last edition of his work, and is perhaps as convenient and proper as any that has been submitted to the profession.

Class I. Hæmatics, or blood medicines.

Division 1. Restoratives, as iron in anæmia.

Division 2. Catalytics, as mercury in syphilis.

Class II. Neurotics, or nerve medicines.

Division 1. Stimulants, as ammonia.

Division 2. Narcotics, as opium.

Division 3. Sedatives, as hydrocyanic acid.

Class III. Astringents, as tannic acid.

Class IV. Eliminatives, cantharides and croton oil.

The author is sensible in having but little of anything to say on the *modus operandi* of remedies. His statement of the circumstances that *modify the action* of remedial agents is sufficiently full for the purposes of the student, and indeed comprises most of what is known on that, to both physician and patient, very important part of the subject. These laws result from peculiar conditions of the body, (idiosyncrasy) difference of sex, of climate, of temperature, of diet, of habit. Then again the customs, superstitions, political relations of society, the state of the mind, the temper, the intellectual powers, all may exert a modifying influence.

Under each one of these heads the author has some very interesting examples. He instances the case of Baron Haller who from *habit* became so accustomed to the odor from dead bodies, that he was agreeably impressed with it—"was never so much at home as when engaged in the dissection of dead bodies; yet the fetid perspiration from the feet of a visitor put his good humor to the test more than once. An old lady who had followed the occupation of laying-out dead bodies for thirty years, declared that no sensation was more agreeable to her than that of handling a corpse."

Elements of Inorganic Chemistry, including the application of the Science in the Arts. By THOMAS GRAHAM, F. R. S. L. and E. late Prof. Chemistry in the University College, London: Edited by Henry Watts, B. A., F. C. S., and Robert Bridges, M. D. Second American, from the second revised London Edition. Complete in one volume, with two hundred and thirty-three Illustrations, on wood. Philadelphia: Blanchard & Lea, 1858, pp. 852.

The publishers have, at length, been enabled to present Graham's Inorganic Chemistry, complete in *one* volume. The first portion, embracing 430 pages, was edited in 1852, by Dr. Bridges; the remainder, by Watts, who adds to it a supplement. The work now is not only on a level with the advanced condition of the science, but it is also thorough and elaborate.

Among the changes by which the work is improved, the following may be noticed:

1. The systematic introduction of the best processes for the separation and quantitative estimation of metals and other important substances, in addition to the description of their properties and reactions. The new methods of *volumetric analysis* are detailed, with the description and applications, in particular of Bunseu's General Method.

2. In the supplement in which the subjects treated in the first volume, are resumed and brought down to the present time. The determination of the important physical constants, viz: the mechanical equivalent of Heat; the relation between the chemical and magnetic effects of the electric current, and the reduction of its force to absolute mechanical measure; also the measurement of the chemical action of light. The polarization of light is treated in sufficient detail for the wants of the chemical student, attention being directed to the methods of optical saccharimetry, and to the very remarkable relations between crystalline form and molecular rotatory power, discovered by Pasteur.

3. The modern views of the constitution and classification of chemical compounds are explained at considerable length, chiefly according to Gerhardt's unitary system. This includes the classification of organic, as well as inorganic compounds;

as indeed, every general system of classification must do. In the same portion of the work, the formation and reaction of the principal classes of organic compounds are explained so far as appeared necessary to the general understanding of their mutual relations.

"4. The last portion of the supplement contains the most recently discovered facts relating to the non-metallic elements and the metals of the alkalies and earths, a prominent place being assigned to the allotropic modifications of certain elements, viz: borax, silicon, sulphur, selenium and phosphorus, and to the methods of obtaining the alkali and earth metals in the free state."

The supplement by Watts is very worthy of perusal. The late researches in regard to heat, polarization of light, &c., are carefully considered, and a digest given of what has been added to the literature of these subjects. The relation between heat and mechanical force or work, (Dynamical theory of heat,) has been, of late, very industriously investigated, by Clausius Joule Rankine and W. Thompson.

The following are among the conclusions:

"1. That the quantity of heat produced by the friction of bodies, whether solid or liquid, is always proportional to the force expended.

"2. That the quantity of heat capable of increasing the temperature of one pound of water (weighed in vacuo, and between 55 and 60 deg.) by 1 deg. F., requires for its evolution, the expenditure of a mechanical force represented by the fall of 772 lbs. through the space of one foot."

This relation between heat and work is supposed to furnish an almost unanswerable argument in favor of the dynamical theory which makes heat and motion, one and the same thing.

PART FOURTH.

EDITORIAL AND MISCELLANEOUS.

American Medical Association.

Since our last issue this body held its eleventh annual meeting in Washington City, commencing on Tuesday, May 4th, and continuing till Thursday evening following. We publish the transactions from the "Washington Union," where we happen to find the fullest report.

From what we have seen and heard, the meeting was a successful one. A large delegation was present, and we should think the volume forthcoming would be of the usual size.

The address of the President, Prof. Eve is worthy of the reputation of that gentleman. It discusses some of the prominent topics, which for some time have been before the profession. Its most valuable feature, however, is the summary presented of what has been accomplished by the Association up to the present time.

The report on "Medical Education," by Dr. J. R. Wood, we regard as being very sensible. It is conservative, just to all parties. "Laymen merited censure for sending men to Medical Colleges not qualified for the profession; and Colleges merited censure for sending men out not qualified to practice the "Healing Art." The report was submitted to a committee of delegates from Colleges, which are to meet at Louisville on Monday, immediately preceding the meeting of the American Medical Association for the year 1859.

This subject of medical education has served as the staple for discussions ever since the Association has been organized, and before the organization of this body it was the great theme among State societies. Repeatedly it has been referred to committees, and time and again we have had lengthy reports. To what has it all amounted? It would be very queer if some good had not been the result. The suggestions from committees, growing out of a thorough consideration of

the subject, have no doubt conduced to something in the way of improvement. But who is there that has watched attentively, the practical operations of the subject that is not prepared to admit that the defects relate to some rather uncontrollable circumstances. They relate not merely to laymen and colleges, but to our condition as a people. We reckon ourselves as possessing a very high order of civilization, but have we advanced sufficiently to allow of the time and expense necessary to a complete medical education? Three years private pupillage and attendance on two full courses of lectures prepare a young man possessing a good literary education very poorly for the duties of the practitioner. With such advantages he is a mere novice, qualified, if such a term be allowable, to get up a capital in the way of errors and mistakes that will last him for shame the rest of his life. Such being the case with reference to those capable of availing themselves of our best opportunities, what may be said of the large number whose pecuniary circumstances, no less than the wants of society, make it necessary for them to try to practice after a single course of lectures, and often without having attended any at all. Such, it may be said, is all wrong. Wrong in this connection is a relative term. There is much of the South and West yet but imperfectly developed. The inhabitants thereof are struggling to develop the resources of those extensive regions, and in doing this they have to have physicians to care for them. They cannot afford to import physicians of the first order. Their first supply is generally furnished from their own number. Some one in every neighborhood spontaneously turns doctor, or doctress, and commences bleeding, giving pills, and acting in difficult cases the part of midwife. Another stage of progress develops a class of young men ambitious to be useful, and seeing the wants of the people with reference to medicine, they commence the work of preparation in this line. Many of these are at the commencement, entirely unaided by either a preceptor or books. Besides, they are often compelled to engage in some kind of business or other in order to keep soul and body together during their novitiate. From such material, material created by necessity, our colleges have in part had to make M.

D.'s, and who should be surprised to find the effort somewhat imperfect. Indeed, it is a matter of astonishment that the results are as good as they are found to be.

We are far from urging any thing in palliation of those who have privileges and neglect to profit by them. We design only to state the fact that heretofore, to a much greater extent than at present, the means and facilities for obtaining a substantial medical education, were by no means commensurate with the wants of society for medical men; and hence the futility of eternally complaining against medical colleges for deficiencies over which they have had no control.

The trouble in regard to Dr. McClintock, took up some of the time of the Association—more than it merited. The apologies of Drs. Reese, of N. Y., and Bryan, of Philadelphia, for their connection with the case, were as creditable to these gentlemen, as the scrupulousness which characterized the action of the Association was to it. A matter with reference to this trouble yet remains to be disposed of. McClintock has repented of his sins, has reformed his life and now asks forgiveness at the hands of the Association. Will it forgive him? *Or has he committed an unpardonable sin?*

The *Hospitalities* extended to the delegates by the physicians of Washington City, Georgetown, by the President at the Executive Mansion, and by several distinguished statesmen were without doubt appreciated.

Ohio White Sulphur Springs.

Having just returned from a visit of observation to the above springs, we take great pleasure in laying before our readers some of the favorable impressions which we received.

Situation.—The springs are situated on the west bank of the Scioto, 17 miles north of Columbus. For some miles above and below, the Scioto is a most beautiful and picturesque stream; the current is swift, and the banks bold and rocky. A section here of some ten or fifteen miles, with this as its center, may be regarded as the "Rapids of the Scioto." Its

cool shaded borders present many attractions, not only to the disciple of Izaak Walton, but to the botanist, the geologist, and the microscopist.

The Springs—The White Sulphur.—The principal one—that from which the place derives its name—is, in fact, an Artesian Well, from which issues a large stream of white sulphur water. In 1824 a person began boring for salt; but, at the distance of 160 feet, his auger dropped into a vein of sulphur water, which at once arose to the surface. So swift was this subterranean current, that in attempting to shut it out, ordinary copper tubing was at once bent and completely flattened. The water from this well is carried up the hill some distance, where it is received in an elegant marble vase. With the present arrangement, about 120 gallons per minute are discharged; but it is probable, that with a more perfect tubing, the amount of water could be doubled. Although no complete analysis of the water has been made, yet the discharge of sulphuretted hydrogen, and the copious deposit upon the vase, at once decide its character, and places it by the side of such springs as the White Sulphur of Virginia.

In addition to the above, four other springs, all differing in character, are found upon the estate—amongst which are a *Chalybeate* and a *Red Sulphur*.

The Medical Properties of these Waters.—Sulphur waters have long been celebrated in the treatment of disease of the stomach, liver, spleen, skin, brain and nervous system; and by a number of well-authenticated cures, it would seem that the *Ohio White Sulphur* possesses curative powers that entitles it to rank amongst first-class mineral waters of this description.

The Chalybeate Spring may be resorted to by persons laboring under debility, anemia, &c. As a tonic its waters will be peculiarly applicable to diseases of debility in females.

The Red Sulphur may be regarded as a saline chalybeate, and, if we may judge of its medicinal virtues by corresponding springs, it may safely be regarded as of use in certain forms of disease of the lungs, in disease of the kidneys, and in those

states of the constitution where there is a want of tone in the muscular and nervous systems.

The Hotel, Grounds, &c.—The proprietors intend making this a first-class place in every respect. The buildings are neat, the rooms well ventilated, and the fare excellent. The grounds are beautifully laid out in walks and drives; a ten-pin alley and billiard-room have been erected, and a livery well stocked with horses and carriages is at hand; so that the guest may have choice of a variety of amusement and exercise.

This place presents many advantages to the invalid and the worn-out business man; and the time is at hand when its virtues will be acknowledged and appreciated.

Microscopic Material.—We found no difficulty in obtaining from the rocks of the river abundant material for enjoyment with the Microscope. Any quantity of Protozoa may be obtained from the surfaces of the rocks about the river. Microscopists therefore who wish to try the powers of their instruments, can do so here to their heart's content. Here they may enter upon the questions—What constitutes an animal? What is a plant? What are the criteria by which the lowest vegetable and animal forms are distinguished from each other? Is the view of Seibold, Kolliker, and others, that individual animal forms may be unicellular, or that an animal may be composed of only a single cell, correct? To what is motion in Infusoria due? To what is it due in the Rhizopoda? These questions have for years occupied the attention of such physicists as Muller, Ehrenbergh, Pritchard, Kutorga, Dujardin, Kolliker, Carpenter, Burnet, etc., and why should they not that of a Buckeye? To our friends, therefore, who like the microscope better than a "deck of cards," or a "ten-pin alley," we say, carry your instruments along with you.

The Anatomy of the Protozoa.—These little animals, according to Siebold and others, have a very delicate cutaneous envelope. This is sometimes smooth, at other times thickly set with cilia. The organs of locomotion do not consist of muscles, though the gelatinous matter, of which their body is composed, has contractile powers. In a certain variety, the vorticellina, there can be perceived, in the contractile pedun-

cle, a longitudinal muscle. The cilia on the surface of the Infusoria, are in some instances arranged in a remarkable order and manner, by which these animals can move from place to place with rapidity. Nothing like a *nervous system* has yet been discovered in Infusoria, although they clearly evince in their actions the existence of sensation and volition. The sense of touch in the naked Infusoria is supposed to exist over the whole body; in those covered with cilia the sense appears to reside in these. Many of the Infusoria appreciate light, not by the possession of an optical ganglion, but, as is supposed, by the surface of the body. The digestive apparatus has a variety of forms in Infusoria. Some of them, as the *Astoma*, have no mouth. They absorb the food from the media in which they live by the surface of the body. Others have a mouth and an æsophagus merely; others again, as the *Infusoria Polygastrica*, have a mouth and a great number of stomachs. The mouth of Infusoria varies in position—sometimes in front, sometimes behind, and, in some cases, near the middle third of the body. The anus is usually on the dorsal surface of the posterior portion of the body, and is occasionally indicated by a slight external projection. There is no vascular or circulating system distinct and enclosed by its own walls in Protozoa. Some, as the Stomatoda, possess pulsatory contractile cavities, which vary much in form, number, etc. These cavities contain a clear transparent liquid, which, on their contraction, entirely disappears. The contracting of these cavities succeed each other at more or less regular intervals. This arrangement constitutes the first appearance of a circulatory system. *Respiration* appears to be performed entirely by the skin. While no special organ of *secretion* has been found in the Protozoa, the skin seems to possess a power of secreting various materials which, in some species, harden and form a carapace, or a head, while, in others, it appears to glue together foreign particles, forming a case for the body. The Infusoria have no *sexual* organs; they, therefore, lay no eggs. They propagate by *fissuration* mostly, occasionally by *gemmation*. The

fissuration (division) occurs longitudinally and transversely. Propagation by gemmation (budding) is very rare.

Protozoa pretty generally possess a *nucleus* of a certain character, which is situated in the central portions of the body. These nuclei exercise seemingly an essential influence in the propagation of Infusoria and Rhizopoda. Every time the individual divides there is a division of its nucleus. It lies to appearance loosely in the parencheyma, is granular, and often of a yellow appearance. These *nuclei* are thought by some to be the real animal, the envelop around them being merely temporary, to protect the development of the animal.

We have thus alluded, by the assistance of a learned work, to the *Anatomy* and *Physiology* of these types of the animal kingdom. Or in other words, to the animals upon which the "Good Man" first tried his hand in making. Insignificant as they may appear to be, they are full of interest, full of instruction. Broad and comprehensive views the medical man, especially, may obtain by looking into the characters of *Protozoa*.

Meum et Tuum.

Two of our exchanges (the Boston Medical and Surgical Journal, and the American Medical Monthly) have lately made complaints, that they are not always credited with what we extract from them, for our department, "*Selections from American and Foreign Intelligence.*" The way these omissions have occurred, is this: we have been in the habit of entrusting the reading of the *proof* of this department to the foreman in the printing office—we, ourselves, reading the other departments, Original Communications, Bibliographical, etc. The fault, therefore, has not been exactly ours, but that of our agent. We will see to its correction in future.

TO SUBSCRIBERS.—The present number closes the *tenth* volume of the *Ohio Medical and Surgical Journal*. It is no pleasant duty to state that many of our subscribers are in

arrears for, not only back volumes, but also for the present one. We suggest that *now* is a propitious time to have our dues all liquidated. We send out Bills with the present number. No one conducting an enterprise like ours, can afford to employ agents for collection. We have all, therefore, to trust to the silent, pantomimic representations of "Bills," for the security of our rights. Will such awaken, on the part of our subscribers, a little attention to a matter of small moment to each one of them, but to us one of no little importance.

Prof. Eve.

While on his way from Nashville, Tenn., to Washington, to attend the late meeting of the American Medical Association, our physicians received a call from this distinguished surgeon. We have to say that it gave us great pleasure to take by the hand one who has so well acted his part in our profession. Prof. Eve, as is well known, has lately made himself useful in getting up a work entitled "Remarkable Cases in Surgery." The work purports to contain nothing more than an account of cases already published; yet the labor of collecting together in one volume, these "Remarkable Cases," that it might, at once, be seen what Nature is competent to do in the way of repairing injuries, was a very valuable one to the profession.

RECENT IMPROVEMENTS IN PRACTICAL SURGERY.

Dislocation of the first Phalanx of the Thumb upon the dorsum of the Metacarpal Bone. A new method of reduction.

The Boston Medical and Surgical Journal for Oct., 1857, and the American Journal of the Medical Sciences for April, 1858, contain descriptions of a new method of effecting the reduction of this very troublesome dislocation, which, to say the least, is worthy of attention. It is accomplished thus: Bend the thumb back till it stands at a right angle on the dorsum of its metacarpal bone. Now force the base of the phalanx

forward till it drops down in contact with its distal extremity, keeping it, meanwhile, at the same angle. The articular surfaces being thus brought together, throw the thumb forward into a straight line, and the reduction is effected.

A simple and efficient Bandage for Fracture of the Clavicle.

The original description of this bandage, contained in the March number of the Charleston Medical Journal, was marked for our last issue, but was crowded out. The following we quote from the American Journal for April:

The bandage is formed of a strip of cloth from three to five feet long, and from eight to eighteen inches wide, (according to the size of the patient,) which is slit from both ends in such a way as to leave a bridge from one to two inches wide in the centre, connecting the two lateral half strips. A soft pad having been placed in the axilla, to act as a fulcrum upon the riding fragment, the affected arm is carried over the chest, the palm of the affected hand resting upon the side of the thorax, under the border of the opposite armpit. This position of the arm removes all deformity, and brings the fragments in apposition. The centre of the bridge of cloth is now placed under the elbow, the superior strip, which covers half the height of the affected arm, is made to encircle the chest; one end is carried forward, the other backward, to meet the opposite armpit, where, after enveloping the hand, and being firmly drawn upon the affected arm, they are secured with needle and thread, pins, or an ordinary knot. The inferior strap, which is placed under the affected arm as a sling, is made to traverse the chest in the same way, the ends meeting over the opposite shoulder, where they are secured by the same means. If, at the several points where the strips cross each other, a stitch or a pin is placed, the result will be a firm casing, which even in the most restless child, cannot be disarranged. The needle and thread is by far the preferable mode of completing and sustaining the adjustment, as the stitches are not apt to be interfered with by the patient or friends; pins, on the contrary are often tampered with, particularly if there should be any restraint from the bandage. As the material is quite soft, no binding nor excoria-

tions are produced. The bandage supports the entire limb in an easy position, and clasps the arms sufficiently to prevent injurious motion, without being irksome to the patient. It requires no constant renewal, as one single application, if carefully made and properly secured, can be worn until the cure is perfected.

Employment of Collodion in Orchitis.

DR. LOSSETTI, of Maggiore Hospital, Milan, having treated 64 cases of Orchitis, solely by the use of Collodion, has formed a high opinion of its efficacy. He uses one part of Castor Oil to twenty-four of Collodion; to be applied twice a day until the cure is completed. He uses it more frequently in cases of extreme gravity, and does not confine the treatment to simple, uncomplicated cases, but regards it as equally efficacious where epididymitis or inflammation of the spermatic cord is present.

New Diagnostic Element in Dislocation of the Shoulder.

Prof. L. A. Dugas republishes, with wood cuts, in the May number of the Southern Medical and Surgical Journal, a paper from him, contained in the 10th Volume of the Transactions of the American Medical Association.

The principle involved is enunciated in the following language: "If the fingers of the injured limb can be placed by the surgeon or the patient upon the sound shoulder, while the elbow touches the thorax, *there can be no dislocation*; and if this cannot be done, *there must be a dislocation*."

The plates represent the mechanism on the skeleton of the several varieties of dislocation, and show that in all of them the upper extremity of the humerus is in contact with the thoracic parietes; that the rotundity of these is such as that both extremities of that bone cannot be in contact with them at the same time, when the direction of the humerus is such as to allow the fingers to touch upon the opposite shoulder. He shows further, that in all other injuries, the head of the humerus, being in the glenoid cavity, and thus removed from the thoracic parietes, no other form of injury can give

rise to a physical impossibility to place the elbow and fingers in the positions respectively indicated.

It would thus seem that the broad question of the existence or not of dislocation in a given case, would be easily settled. We deem these suggestions worthy of consideration.

H.

WE regret the necessity of deferring the publication of the proceedings of the Ohio State Medical Society. We will endeavor to give a full report in our next issue.

New Arrangement.

We have associated with us, for the future management of the Journal, our colleague, Prof. J. W. HAMILTON. By this arrangement, Prof. H. becomes equally interested as editor and proprietor. This step has been taken, partly to lighten our own cares, but more for the purpose of throwing more work on to the pages of the Journal. We therefore introduce to our readers Prof. H., from whom may be expected, to say the least, efforts at usefulness.

Salutatory.

This Journal originated under the auspices of Prof. Butterfield, in September, 1848. He was removed by death in 1850. Its supervision, upon this occurrence, devolved upon Prof. R. L. Howard, who, at the end of four years, was removed in like manner. In 1854, the proprietorship was assumed by Prof. John Dawson, who continued to have the entire supervision of it until within a few weeks. It is worthy of note, that though it is now one of the oldest Medical Journals in the west, it has never been subjected to a single change, as to terms, size, or frequency of issue; nor has it ever failed to make its appearance at its proper time. Furthermore, it has never undergone change as to proprietorship, except as the result of disease or death.

The arrangement above announced, brings the undersigned

into its service, and that of its readers and patrons, as one of its editors and proprietors.

We approach this post of duty, fully conscious of the labor and responsibility associated with it. To one aspiring to the position of, and claiming the consideration due a common laborer in our profession, it is not destitute of attractions; but they are such attractions only as are afforded by its asperities.

We acknowledge to being ambitious; not of the attainment of mere place, or the honors associated with ostensible position. Those whose good opinion we covet, know full well the varied and frequently unhallowed appliances by which these are attained, and the unsanctified purposes for which they are used. We prefer different aims. It is the height of our ambition, when our work is done, that it shall be our personal consciousness, and the judgment of our compeers, that we have done *our duty*.

We have formed a connection with this Journal to labor for the profession of Medicine. It is the organ of no clique or party; and having no ends to attain except those for which our brotherhood, in its own behalf is laboring, it confidently appeals to all whose interests it subserves, and whose standing it aims to promote, for such a patronage as will give it the greatest possible degree of efficiency and success in the attainment of these objects.

We do not merely want your subscriptions. We want your *contributions*. The west has interests in common with the profession of our common country. We shall delight, in common with our brethren, to labor for these as a common heritage. But we have *special interests*—*home* interests—*home* diseases—a *home* or domestic literature, &c., &c. It is especially by laboring for *these*, that we hope to accomplish good for the profession at large.

And now, reader, this is the beginning of an interesting relation between you and us. We ask your kind forbearance. We pledge you our best endeavors.

Respectfully,

J. W. HAMILTON. (H.)

PROFESSIONAL CHANGES.—Prof. S. G. Richardson has resigned the chair of Anatomy in the Penn. College, and accepted a chair in the N. Orleans School of Medicine.

South Carolina Med. College. Jef. Med. College. Profs. Dickinson and Geddings have terminated their connection with the South Carolina Med. College; the former having accepted the chair of Practical Medicine in the Jefferson Med. College, made vacant by the death of Prof. Mitchell. Dr. J. J. Chisholm becomes the successor of Prof. G., while Prof. D. is succeeded by Dr. P. C. Gillard.

University of Louisville.—Dr. Henry Miller, Prof. of Obstetrics in the Medical department of the University of Louisville, with which he has so long been connected, has resigned. The chair, we believe, is vacant. Dr. Flint, successor to Prof. Gross, in the chair of Surgery, in the same Institution, has also resigned, and the accomplished Prof. of Anatomy, Dr. Palmer, is his successor, leaving Anatomy, for the present, vacant.

University of Maryland.—Prof. R. K. Thomas has resigned the chair of Obstetrics, in consequence of ill health. Dr. G. W. Miltenberger, formerly Professor of Materia Medica and Therapeutics, in the same Institution, is appointed to fill the vacancy. Dr. Charles Frick is appointed to the latter chair.

University of Buffalo.—Dr. Nichols, recently Demonstrator of Anatomy, has been appointed Lecturer in that department. Dr. Lemon has succeeded to the Demonstratorship. H.

STARLING MEDICAL COLLEGE.—It will be seen in our advertising columns that the next session of Starling College commences on the 20th October, 1858. The dissecting rooms and the hospital will be accessible to students from the commencement of October.

Students who wish to avail themselves of all the advantages of a course of lectures, should be present at the commence-

ment of the session. It is then that preliminaries are discussed, and that the foundations for the course are indicated. Besides, the usual time devoted to a course of lectures is too short to dispense with any of it. Indeed, the student who wishes to be somebody in his profession will see at once the propriety of economizing every hour of the session, from the commencement to the close.

Columbus now compares very favorably with the best places in the country for a Medical College. Clinical material, and material for the study of practical anatomy, are in sufficient abundance here for all the purposes of a thorough medical education. Our college building, a very superior specimen of architecture, is admirably adapted to the purposes for which it was designed. The lecture rooms and dissecting apartments are arranged with reference to the health, comfort, and convenience of the student. And all of the Professors are provided with facilities for the illustration of their respective departments. We think, therefore, that we hazard nothing in suggesting to the friends of the Institution, and especially to its alumni, that we are prepared to give to students all the advantages that can be derived from a Medical College. To our friends we say, send us forward industrious students, desirous to become qualified for the duties of physicians, and we will take the risk.

It gives us great pleasure to state in this connection that the alumni of Starling Medical College are taking rank number one among their brethren wherever they are located.

NECROLOGICAL.—Among the deaths of eminent medical men of recent occurrence, is that of DR. FORBES ROYLE, author of Royle's *Materia Medica*, a work well known to our readers.

BENJAMIN TRAVERS, an aged and venerated English surgeon, a former pupil and co-laborer with Sir Astley Cooper, author of *An Inquiry into the process of Nature in Repairing Wounds of the Intestines*, a work on *Diseases of the Eye*, also

one on *Inflammation, &c.*, died March 6th. Benjamin Travers, Esq., son of the above, is already a man of professional distinction.

MONS. L. BAUDENS, one of the chief inspectors of the French army, author of a work on Gun Shot Wound, who served with great distinction in the Crimean war, died of malignant disease, at Paris, Jan. 27.

DR. ROBERT HARE, for many years Prof. of Chemistry in the University of Pennsylvania, an original but eccentric man, died May 16th. During the latter part of his life he suffered great impairment of his mental faculties, being in a state of senile imbecility, a result of which was his embracing various vagaries, as clairvoyance, spiritualism, &c.

DR. L. G. ROBINSON, aged 32, recently one of the editors of the *Medical Independent*, died at Detroit, May 7th. He is said to have been a man of much promise.

DR. D. B. VAN TUYL of South Bend, Ia., formerly, we believe of Dayton, Ohio, died in March last. He was a leading physcian of Northern Ia.

H.

ON EMBOLI. By *Professor Schutzenberger*.—The following are the principal conclusions of an elaborate series of papers, published by Professor Schutzenberger, of Strasburg, upon the obstruction of arteries by fibrinous clots detached from the heart or large vessels.

1. Fibrinous concretions or solid bodies formed in the heart or large arteries may become detached from their primary seat, be carried into the torrent of the circulation, and obstruct different secondary branches of the arterial tree. The circumstance is neither absolutely rare nor exceptional, and it constitutes a special and very remarkable affection of arteries to which Virchow has given the name of arterial emboli. 2. The existence of the affection is proved. (a) By scientific induction, which demonstrates the possibility of the formation of solid bodies in the heart and large vessels, and the probability that such bodies may become free and floating; and by

experiment, which proves that the sanguineous current may carry them to a distance. (b) By numerous and conclusive clinical and microscopical observations, agreeing among themselves and admitting of no other interpretation. (c) By microscopic researches, which have shown in some cases the speciality and identity of certain of these bodies simultaneously observed in the heart and in the plugs obstructing the arteries. 3. Arterial emboli is then a real and very serious disease, not of infrequent occurrence, but long misunderstood. It should be admitted into the nosological scheme, and deserves all the attention of the clinical observer and the pathological anatomist. 4. It has been observed as a consequence of (1) Gangrenous phlebitis of the pulmonary veins. (2) Of organic affections of the left side of the heart; and of (3) The atheromatous degeneration of the large arterial trunks. Its most frequently observed cause is found in the fibrinous, or calcareous concretions, or in the polypiform excrescences developed on the mitral valve, and carried away by the circulating torrent. 5. The form, size, consistence, color, and nature of these obtruding bodies are variable and notably differ, according to whether the obstruction examined be old or recent. In the former case they may have undergone transformations which may render them unrecognizable; while in the latter, their fibrinous, calcareous, verrucous nature may be shown. 6. When the patient does not succumb to a first arterial obstruction, generally others are produced, the multiplicity and succession of the arterial lesions being one of the characters of the disease. Multiple obturation may be successively produced from the periphery toward the heart, either in various points of the same arterial branch, or in different arterial divisions. 7. The arteries which have been most frequently found obstructed are the subclavian, the internal carotid, the arteries of the lower and upper extremities, the splenic and renal arteries, the external carotid, the mesenterics, etc. 8. The obturation is ordinarily produced at the point of narrowing of an arterial branch immediately below the bifurcation, or the point of departure from a large branch, in the points where the artery incurvates or traverses aponeurotic or

bony canals. 9. At first the arterial coats are healthy, and the plug is surrounded by a recent coagulum, which extends upward to the next collateral. Below, the artery may be empty, or may contain recent coagula. The plugs differ from secondary coagula by their color, consistence, and composition. As a consequence of arterial obturation the outer coat may inflame consecutively. The plug contracts adhesions with the inner coats, and the whole is transformed into a ligament-like tissue. 10. If, after the obstruction, a sufficient collateral circulation be set up, the lesion remains localized, and only gives rise to a temporary functional disturbance. But if such collateral circulation be not set up, or only imperfectly consecutive changes are produced in the organs to which the artery is distributed. In the case of obturation of the arteries of the extremities, in the absence of collateral circulation, mortification, or gangrene, general or partial, dry or humid may be produced. In parenchymatous organs very exactly circumscribed sanguineous or fibrinous infarctus are produced. In the brain, this infarctus usually gives rise to yellow ramollissement, and it is highly probable that certain circumscribed indurations are due to obturation of the arterial ramuscles. In the spleen and the kidneys the infarctus constitutes an entirely special lesion, generally of a conical form, exactly limited, of different color according to its age, and frequently more dense than the remainder of the parenchyma. It is probable that emboli of the small arteries may give rise to other, as yet little known lesions of the parenchymatous organs. 11. The symptoms vary according to the arteries obstructed. Obturation of the cerebral arteries gives rise to disturbance of function analogous to an attack of apoplexy. The symptoms do not differ from those attendant upon cerebral hemorrhage or acute ramollissement. Emboli of the arteries of the limbs is indicated by feelings of numbness, pricking, painful shootings in the limbs, and cessation of the beating of the arteries. Those symptoms may disappear if a collateral circulation becomes established, but when this is not the case the ulterior symptoms are those of gangrene. 12. The treatment of the affection is at present only palliative and symptomatic.—*Med. Times & Gazette*, March 18, 1858.—*North Amer. Med. Review*.



